

FLORIDA DEPARTMENT OF
AGRICULTURE
AND
CONSUMER SERVICES



42nd BIENNIAL REPORT
July 1, 1970 -
June 30, 1972

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INTRODUCTION

This 42nd Biennial Report is drawn from the first full report period concluded since two new divisions were activated in 1969, by authority of the Florida Legislature.

The work of the Florida Department of Agriculture and Consumer Services is described herein.

Our department has a wide-ranging and profound commitment, and its duties vary from promotional marketing of Florida produce in distant outlets, to providing effective leadership in the sustenance and development of a mighty agricultural industry.

The department's major responsibility is a singular one — that of service — but its commission is in areas of consumer protection as well as agricultural administration.

More than ever the concept of Florida's citizenry being comprised of farmers and non-farmers is obsolete. Nor may we even categorize some Floridians as producers and others as consumers. All are consumers, and as citizen or visitor they deserve our consistently, finest performance in their behalf.

Our interest, effort, and our program in service, is for the people of Florida.

— DC

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Director, Division of
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LETTER TO THE GOVERNOR

The Honorable Reubin Askew
Governor of Florida,
Tallahassee.

Dear Governor:

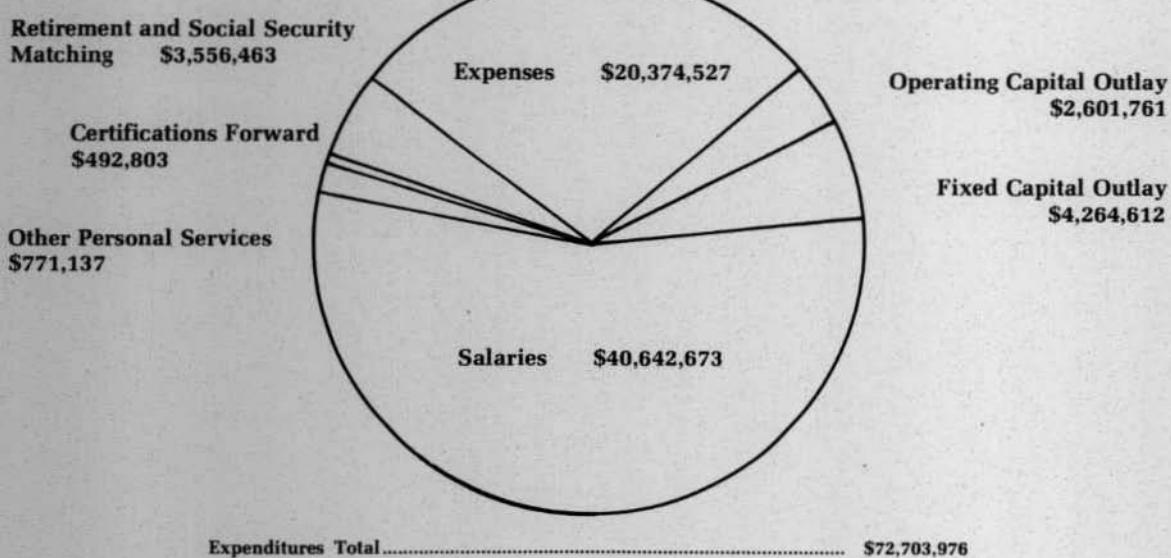
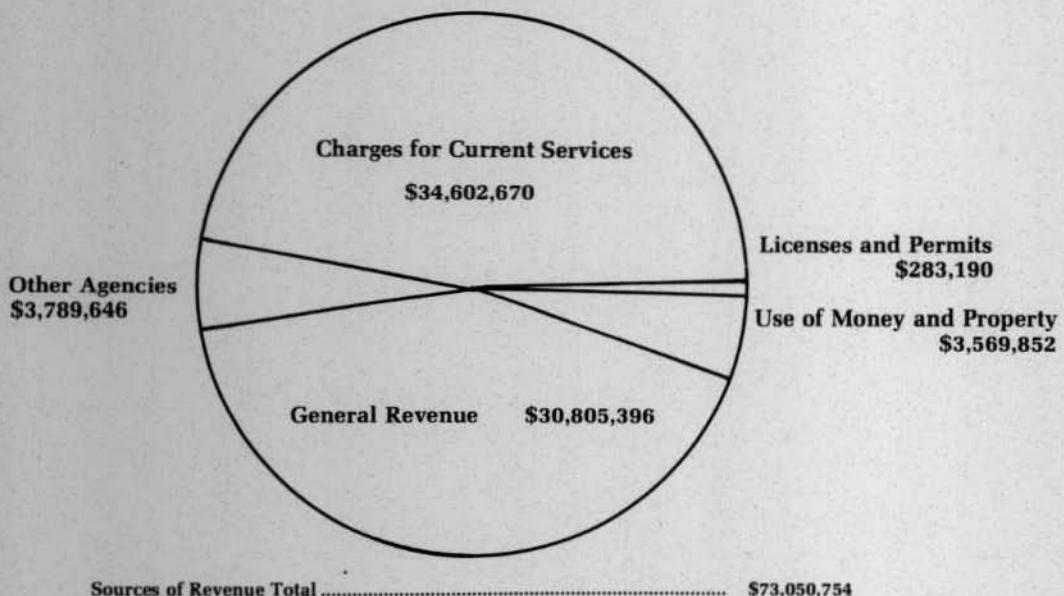
It is my pleasure to submit to you and to the people of Florida the 42nd Biennial Report of the Florida Department of Agriculture and Consumer Services.

This report cites the major services and programs provided by the Department during the two-year period ended June 30, 1972.

Cordially yours,

Doyle Conner
Doyle Conner
Commissioner

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
 REVENUE AND EXPENDITURES
 July 1, 1970 through June 30, 1972



Administration

The Division of Administration, with its director who is Assistant Commissioner, serves to coordinate the total program for this department.

Within the division are a number of staff units with functions outlined as follows:

PERSONNEL

The Personnel Section maintains the official records of the department's employees and administers and interprets the Personnel Rules and Regulations of the Career Service System.

This agency's increasing public responsibilities and work requirements have increased the roster of employees. This growth in size, and the responsibility of remaining within the provisions of the Personnel Rules and Regulations, have necessitated

increased use of an automated personnel system. Proper management and utilization of this system has enabled the Personnel Section to maintain the same level of personal service to the individual employee as in the past. At the same time all divisions have been supplied with detailed personnel records and statistics.

Highly detailed personnel-related information requests received from legislative groups and state agencies are now handled more promptly even while fewer man-hours are involved.

A sampling of computer generated reports from a common data base includes job classification listing; roster of employees; address lists with selection options for all employees, supervisors, divisions, headquarters county or mailing address counties; budgeted position information report:



Maintaining official personnel records on all departmental employees — and interpreting and administering career service code — is no small task. Divisions are supplied with detailed information relating to the department's effective personnel program.



Reception desk, Mayo Building, is located at main west side entrance. During the biennium, this foyer was remodeled and equipped with literature rack and group of mounted photographs depicting Florida agriculture.

personnel actions taken report; personnel actions due report; personal history roster; position information report; employee status report; master personnel list; position history by position number; position history by headquarters county; employee history; employee turnover report; consolidation of payroll register; employee leave records; warrant mailers; and quarterly report of unemployment compensation.

Unemployment Compensation

An example of manpower and dollar cost savings achieved through the data system is the quarterly report of Unemployment Compensation. This detailed quarterly report is required by law since state employees are now eligible to receive unemployment compensation. It is submitted to the Department of Commerce, and indicates the number of employees by county, employed on the 12th of each month and the total earnings in that county by division.

This agency has 11 divisions, 3,100 employees and employs people in each county in the state. During each quarter many employees leave the payroll, are hired, promoted, receive merit salary increases and transferred. Each action must be

accounted for in compiling this required report. By manual accounting methods, it would require the full time services of one additional clerical employee to continually update information and compile this report.

Salary costs for this employee would be a minimum of \$1,500.00 each quarter. Normal daily inputs to the data system record the required information for this report.

New programs were currently in the planning stage to further expand the Personnel Section's administrative and management capability.

INFORMATION SERVICES

Public education concerning departmental services, activities and internal communications are the responsibilities of the Information Services Section. This section is responsible for coordination of information services both internally and externally.

The new information plan designed and adopted in the last biennium was further implemented with increased services resulting. The section provided news releases to the news media, and developed and provided publications both internally and to the general public. Moreover, voluminous correspondence was answered and initiated, especially information requests.

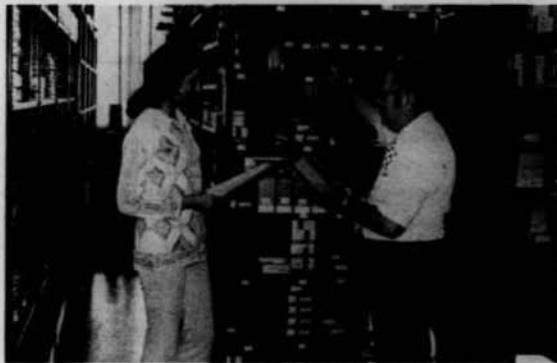
Utilization of the broadcast media in both radio and television was especially noteworthy. Live and taped television appearances involving personnel from all service areas of the department were telecast from a number of television stations monthly stressing services to consumers. News feeds via radio as well as filmed and live programs were used extensively and effectively.

Several publications, including "Flowers, Shrubs and Trees for Florida Homes," were revised and reprinted and some new publications were developed and made available.

A new mobile exhibit was built and used extensively at Florida fairs. Plans were implemented to coordinate exhibits throughout the department with an annual exhibit schedule.

Area personnel meetings were held as planned in which the Commissioner met with personnel and their families and friends to discuss agency problems.

Plans for a departmental movie were put for-



Tens of thousands of items are cataloged, inventoried, and dispersed along orderly and consistent procedural lines. General Services is charged with the responsibility of supplies for office and field.

ward for implementation early in the succeeding biennium. Several public service spots were produced for use by the television media.

Information Services staff participated in numerous advisory council meetings, annual conferences and maintained liaison with a number of organizations in which the Commissioner has an interest.

A highlight of the biennium was planning and implementing a media coverage program for the National Association of State Departments of Agriculture Conventions in late 1971.

A new procedure for obtaining bulk photographs was established through which pictures for feature stories and other uses were purchased commercially at a considerable savings over production in the department's photo lab.

LEGAL

Since the last report, members of the legal office have continued to furnish counsel to the Commissioner and the 11 division directors through repeated telephone conferences, office meetings, and written opinions.

Leases and other contracts, running from and to the department, are approved as to form and legality by the legal office. Numerous laws and rules are drafted and filed and many others are interpreted by the attorneys to implement and make clear the statutes which affect the work of the department.

Members of the legal staff sit as legal advisors to the various technical councils established under the different divisions and staff attorneys assist the Commissioner on the Florida Parole and Probation Commission.

Assistance is offered to the divisions in preparation for and conduct of hearings under permitting sections of the Florida statutes. One staff attorney is usually appointed by the Commissioner as Hearing Officer for purposes of finding facts and recommending procedures and orders.

In the field of consumer protection, the legal office has been responsible for the recovery of approximately \$250,000 by a group of Cuban residents in the Miami area from a franchise sale scheme which failed to provide them with instructional sales material in Spanish as initially promised.

The legal staff has a continuing calendar of both trial and appellate matters in all state and federal courts and during 1970-72, has successfully defended against more than \$1,000,000 of departmental liability exposure.

AGRICULTURAL AND LIVESTOCK FAIR COUNCIL

The Agricultural and Livestock Fair Council acts as an advisory board to the Commissioner of Agriculture and approves the issuance of all fair permits. During the biennium, fair permits were issued to 86 county fairs and 12 youth livestock shows. The Council advises the Commissioner of Agriculture on safety regulations affecting the many different midway companies.

The Commissioner of Agriculture Awards Revolving Fund paid out a total of \$90,000 in awards money for prizes, ribbons, and scholarships to 4-H, FFA and other youth groups during the biennium. This fund offers an incentive for young people to channel their efforts into worthwhile projects.

CIVIL DEFENSE

Civil Defense plans place responsibility with the Department of Agriculture and Consumer Services for the control of food, petroleum and liquid petroleum gas supplies at the retail level in Florida.

Planning for this service is being coordinated with the work of other agencies and the U. S. Department of Agriculture, and the records of supplies are kept current by this section.

DATA PROCESSING

Through the use of modern computer equipment, the Data Processing Section provides timely, accurate and effective data and reports to all offices of the department.

The section takes all steps necessary in the preparation of machine accounting transactions, statistics and other essential data. It also transforms raw data into statistical records and reports, payrolls and tabulations.

The section now has installed an RCA Spectra 70/35 Computer. All existing applications are being redesigned and new application areas are being studied by our Systems and Programming office.

FINANCE AND ACCOUNTING

This biennium witnessed the installation of the fully automated prototype accrual accounting system. Although not completely operational at this time, tremendous strides have been made and we continue toward its full implementation.

Complete restructuring has been accomplished within the unit in accordance with statewide governmental reorganization. This action, combined with annual planning and budgeting and the task of computer conversion, was accomplished during the two-year period ended June 30, 1972.

In several recall crises — involving suspect canned or frozen foods — radio helped pass warning to public. In photo, secretary and information specialist give leads by telephone direct to stations.

REGIONAL OFFICES

The Division of Administration maintained regional offices in Miami and Tampa during the biennium.

Each regional office is manned by a manager and one secretary, who provides liaison between the large metropolitan areas they serve and the main office in Tallahassee.

GENERAL SERVICES

The General Services section handles mailing services within the department, purchasing, supply and duplicating services, telephone services, and records management.

The section provides other services which cannot be efficiently and economically conducted by any other section.



Animal Industry

The functions of the Division of Animal Industry relate to the application of laws, rules and regulations to protect the consumer and promote the health and welfare of the livestock industry. Regulatory programs are established to control and eradicate devastating livestock diseases, protect the industry from losses by theft or vandalism, and provide wholesome meat and poultry food products to the consuming public.

BRUCELLOSIS AND TUBERCULOSIS

A milestone in the bovine brucellosis eradication program was reached on January 27, 1972, when the entire state was declared a modified certified brucellosis area. This status is an indication that the incidence of brucellosis infection has been reduced to less than one per cent of the cattle and five per cent of the herds in Florida. Intensified regulations are proposed to further reduce infection until the disease has been eliminated. Target date for complete eradication of the disease is December 31, 1975.

Surveillance is maintained through milk ring testing of dairy cattle, and testing animals at concentration points. Infected herds are maintained in quarantine until tested clean.

The first complete herd depopulation in Florida due to tuberculosis infection occurred in September, 1970, when a dairy herd found to be heavily infected with the disease was destroyed. This herd had a long history of TB infection and the usual method of test and slaughter failed to eliminate the disease. A second herd was completely depopulated in January, 1971.

CONTAGIOUS AND INFECTIOUS DISEASES

Personnel in this bureau were involved in surveillance activities to detect disease outbreaks and prevent disease spread.

All animals passing through livestock markets and other concentration points were visually examined for evidence of disease or disease vectors. Additionally, all garbage feeding establishments were maintained under inspection and animals checked periodically for presence of transmissible diseases.

Four outbreaks of hog cholera occurred during the period of this report, one in Alachua County, one in Columbia, and two in Escambia. These outbreaks were eliminated without spread, and the state maintained its "hog cholera free" status. One animal in a lot of hogs shipped from a hog cholera infected state to a slaughter plant in Florida was found to be cholera infected on postmortem examination. The diseased animal was condemned and carcasses of other animals in the shipment were heat treated to prevent any spread of disease virus.

During the biennium, 10 livestock markets were approved for conducting supervised feeder pig sales. Division personnel performed herd inspections and issued permits for animals consigned to feeder sales.

No screwworms, cattle fever ticks or exotic disease vectors were encountered during 1970-72.

MARKS AND BRANDS

This unit is responsible for recording marks and brands used by cattlemen for ownership identification of their livestock, for issuance of permits and licenses to commercial haulers of livestock, and for providing investigative assistance to local law enforcement agencies in cases involving livestock losses by theft or other vandalism.

All livestock brand certificates were required to be renewed during this biennial period. Approximately 12,000 applications for brand renewal were mailed by the division to registered brand owners. Brand certificates renewed of record totaled 9,056 while some 1,500 brands no longer in use were cancelled. Placed on the inactive list and subject to cancellation if not renewed within 12 months after being listed as inactive were 1,424 other brands.

The Marks and Brands unit has three field investigators and provides limited assistance in investigating livestock theft complaints. During 1970-72, 587 complaints involving theft of livestock and related equipment valued at \$241,900 were received. Investigations resulted in the arrest of 53



Material for vaccination of horses against Venezuelan Equine Encephalomyelitis arrived by plane (top) at Tallahassee. Consignments of this vaccine were then immediately dispatched by forestry aircraft to major Florida points designated by Dr. C. L. Campbell, state veterinarian. Campbell (below) administers VEE vaccination during summer of 1971. This department's Division of Animal Industry coordinated statewide program during which 129,215 horses were vaccinated during three week period.

suspects and the recovery of \$22,880 worth of livestock and equipment. During the course of these investigations, 885 checks were conducted at ranches, dairies, and livestock markets.

In addition to theft investigations, approximately 900 hours were involved in investigating fraudulent mail order and "bait and switch" beef operations.

A booklet "Livestock Protection" was prepared and distributed to law enforcement agencies, livestock producers and dealers. This booklet provides a ready reference to laws dealing with livestock thefts, marks and brands, and the handling and transporting of livestock.

POULTRY SERVICES

A sharp increase in activity was noted due to the outbreak of velogenic viscerotropic Newcastle disease in birds in the state. This highly contagious exotic disease which affects the respiratory system of poultry and other birds was first diagnosed in April, 1971, in a pet bird aviary in Pinellas County which had imported psittacine birds from the Orient. The owner voluntarily slaughtered all birds on the premises and no spread of the disease resulted from this outbreak. The first outbreak in domestic poultry occurred in Dade County in October, 1971, in two flocks.

In January, 1972, the disease again appeared on the premises of a pet bird importer in Dade County. Extensive outbreaks in other states, particularly California, prompted the declaration of a national emergency by the U.S. Department of Agriculture.

In May, 1972, additional outbreaks in Dade and Broward Counties instigated the placing of federal quarantines and the assignment of a federal task force to work with employees of the division in controlling the spread of the disease. This emergency program was still in operation at the close of the biennial period.

Routine hatchery inspections and surveillance testing for pullorum disease-fowl typhoid and mycoplasma gallisepticum were conducted. All participating breeding flocks maintained pullorum disease-fowl typhoid clean status.

Regulations for the enforcement of the dead bird disposal law were put into effect in October, 1971. These regulations were adopted after consultation with personnel of the Agricultural Extension Service and the Florida Department of Pollution Control and provide methods of disposing of dead

birds in sanitary disposal pits, sanitary land fills or incineration in a manner to prevent air and water pollution as well as disease spread. Seven certificates of compliance were issued.



Diagnostic laboratory of Animal Industry Division receives suspect poultry and animal specimens. These birds from commercial laying flock are being eviscerated for autopsy.

DIAGNOSTIC LABORATORIES

The large animal diagnostic laboratory at Kissimmee and the four branch laboratories located at Cottondale, Live Oak, Dade City and Miami all showed a steady increase in the number of cases handled over the previous period. A significant increase in horse specimens was noted due to the development of a diagnostic test for equine infectious anemia. This new test provides a more rapid, less cumbersome diagnostic tool than the horse inoculation test previously used in confirming this disease.

The number of poultry cases — birds received at laboratories — increased as a result of the emergency Newcastle disease control program.

No disease conditions unusual to Florida were encountered other than the outbreaks of exotic Newcastle disease and hog cholera mentioned earlier in this report.

Plans for expansion at the large animal laboratory are under way which will increase the service potential of this facility to the livestock industry.

DIVISION OF ANIMAL INDUSTRY 1970-72

Brucellosis and Tuberculosis

Cattle Tested for Brucellosis	723,252
Percent of Cattle Infected	2.22
Swine Tested for Brucellosis	4,167
Percent of Swine Infected	2.28
Calves Vaccinated	211,702
Cattle Tested for Tuberculosis	336,944
Percent of Cattle Infected09

Contagious and Infectious Diseases

Cattle Inspected at Livestock Markets	1,484,981
Swine Inspected at Livestock Markets	687,483
Livestock Inspected on Farms	5,481,530
Cattle Checked Through Inspection Stations	1,710,288
Swine Checked Through Inspection Stations	662,129
Other Animals Checked Through Inspection Stations	87,071
Garbage Feeders	1,156
Swine Fed Garbage	1,108,959

Poultry Services

Hatchery Inspections	380
Birds Tested for Pullorum Disease	2,070,168
Birds Tested for M. Gallisepticum	355,891
Foreign Exports, Baby Chicks	21,751,436

Meat Inspection

Animals Slaughtered	1,264,625
Poultry Slaughtered	19,083,103
Red Meat Produced Under Inspection, lbs.	1,368,371,791
Poultry Products Produced Under Inspection, lbs.	216,420,514
Products Certified, lbs.	16,907,863

Diagnostic Laboratories

Cases Submitted	37,139
Tests Performed	211,731

Equine Disease Control Program

Animals Sprayed and Inspected	114,612
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Marks and Brands Unit

Theft Complaints Investigated	313
Brand Certificates Issued	1,877
Livestock Hauler's Permits Issued	1,701

EQUINE DISEASE CONTROL

During the summer of 1971, outbreaks of Venezuelan equine encephalomyelitis occurred in the state of Texas. This disease entered the United States from Mexico, and posed a dangerous national threat to the equine industry. Florida was designated as a high risk area due to its location on the Gulf of Mexico and the high incidence of mosquitoes which are a vector of this disease. A national emergency was declared by the U.S. Department of Agriculture and vaccine was made

available to the high risk areas for a preventive vaccination program.

Approximately 90 per cent of the state's equine population was immunized during a three week period. This mass vaccination involved all regulatory field personnel of this division and the USDA Animal Health Division and the majority of practicing veterinarians.

Many agencies assisted in the program planning efforts, including the Department of Health and Rehabilitative Services, the Agricultural Extension Service, the Florida Veterinary Medical As-



Division of Animal Industry meat inspector (left) and FDA&CS veterinary inspector check animal carcasses. These will be tagged after all are certified clean.

sociation and all segments of the equine industry. No outbreaks of the disease occurred in Florida horses.

The number of cases of equine piroplasmosis increased slightly over the previous biennium. Total cases found in 14 counties numbered 361. Most of the infection was located in Broward and Dade Counties with isolated cases being found in Charlotte, Collier, DeSoto, Hillsborough, Indian River, Lake, Lee, Orange, Osceola, Palm Beach, Polk, and Seminole Counties. All animals on infected premises were inspected for presence of the tick vector, *D. nitens*, and tick control measures applied where ticks were found.

MEAT INSPECTION

This bureau conducts the state-federal cooperative red meat and poultry inspection programs under authority of the Wholesome Meat Act and Wholesome Poultry Products Act passed by the Congress. The activities are designed to insure a supply of wholesome meat and poultry products

and to protect the consumer from deceptive labeling of processed products.

All slaughter and processing establishments operating under inspection are in full compliance with federal standards. A meat inspection processing training school was established in Miami in September, 1970, for the purpose of training new inspectional personnel and providing courses in new procedures in the inspection processes. Prior to opening of the school in Florida, personnel were trained at federal schools located primarily in the western states. Training courses usually last four to five weeks and cover all facets of the processing inspection procedure.

Graduating students are fully qualified under federal standards to perform inspectional services at official processing establishments to satisfy the state and federal laws and regulations.



Marks and brands, registered with the department, serve as a major deterrent to cattle theft. More than 9,000 separate brands and markings were registered by Animal Industry's marks and brands unit.



Chemistry

The function of the Division of Chemistry is the scientific analysis and examination of a wide range of products for the purpose of protecting the purchaser and consumer. The Division of Chemistry is composed of eight sections: Administration, Commodity Testing, Methods Development, Feed, Fertilizer, Food, Pesticide, Pesticide Residue, and Seed.

Samples to be tested are obtained in the field by personnel of the Division of Chemistry or Division of Inspection and forwarded to Tallahassee or one of three branch laboratories for examination and analysis.

Reports of the findings are issued to the manufacturer and purchaser where required. All of the laboratories cooperate with other divisions in analyses of special samples that are sent in for inspection.

During the biennium, the Division of Chemistry examined and analyzed 105,180 samples of feed, fertilizer, food, pesticide, pesticide residue, seed, institutional commodities and miscellaneous products. The total number of tests, analyses, and determinations conducted was 631,083.

ADMINISTRATIVE

Coordination, planning, personnel, budgeting, purchasing of supplies, maintenance of laboratories and equipment, and general supervision of all sections are responsibilities of the Administrative Section.

The Division of Chemistry operates in conjunction with the Pesticide Technical Council and the Fertilizer Technical Council. Composed of consumer and industry representatives, personnel from the University of Florida Institute of Food and Agricultural Sciences, representatives of other state agencies, and personnel from the department, these councils advise the department concerning adoption of all rules pertaining to pesticides and fertilizers. The director of the Division of Chemistry is secretary of these councils and is responsible for coordinating the councils' functions.

SAMPLE PREPARATION AND SUPPLY

The final outcome of chemical analyses depends to a great extent on the accuracy of prepa-

ration of the analytical sample. Sample Preparation and Supply is responsible for receiving all samples assigned to the laboratories in Tallahassee, preparation of the samples where necessary, and distribution to the various sections for physical and chemical tests. Samples of fertilizer, food, feed, and pesticides are prepared for analysis, and agricultural products for pesticide residue determinations are processed.

Pesticide and fertilizer samples are weighed for determination of net contents; screen tests are run on dolomite and limestone samples and their moisture content determined.

FERTILIZER

The Fertilizer Section is responsible for the laboratory and technical phases of the enforcement of the Florida Commercial Fertilizer Law, Chapter 576, of the Florida Statutes. Official samples of commercial fertilizers offered for sale in Florida are analyzed for aluminum, boron, calcium, chlorine, cobalt, copper, iron, magnesium, manganese, molybdenum, pesticides, phosphates, potash, sulfur, zinc, and all forms of nitrogen when any of these ingredients is guaranteed on the label or tag attached to the shipment of fertilizer.

During the biennium the Fertilizer Section approved 16,250 applications for registration of commercial fertilizer.

Samples of dolomite and limestone are analyzed to determine if the guarantees are met as to content of calcium and magnesium. Screen tests and moisture determinations also are conducted on these materials. Microscopic examinations of fertilizer samples are made to verify the source materials stated on the label and to detect discrepancies.

The Fertilizer Technical Council provided the department with invaluable assistance by holding public hearings and making recommendations on regulations necessary for implementation of the Florida Commercial Fertilizer law.

PESTICIDE

The Pesticide Section, which operates under authority of the Florida Pesticide Law, Chapter 487 of the Florida Statutes, is responsible for the proper labeling as well as the quality of all pesticides of-



In Chemistry Division's fertilizer testing unit, commercial plant food samples are checked in laboratory to confirm elements as declared. In photo, apparatus is used for nitrogen breakdown.

ferred for sale in Florida. The products examined included insecticides, fungicides, herbicides, rodenticides, and bactericides, as well as desiccants, defoliants, and plant regulators.

The Pesticide Technical Council advises the department on matters pertaining to pesticides and pesticide regulations. The council has been active during the biennium in the development of new laws restricting the sale and use of pesticides.

PESTICIDE RESIDUE

The Pesticide Residue Section was established to control pesticide residues on all foods and feeds. Authority for the program is contained in the Florida

Food, Drug and Cosmetic Law. Pesticide residue control protects the health of the general public by controlling the indiscriminate use of pesticides on crops and feedstuffs.

The principal products examined in the program are vegetables, fruit, milk, eggs, and commercial feeds, though all foods and feeds are subject to examination. Residue analyses are among the most difficult determinations encountered by an analyst, as sensitivity is in the parts per million and billion range and the tolerances range from zero to 100 ppm. The work done in this section has received national recognition, with visitors from this country and abroad coming to Tallahassee to study the methods developed in the department's own laboratories.

A branch laboratory in Sanford and two mobile laboratories, which move to the principal vegetable producing areas seasonally, complement the headquarters laboratory in Tallahassee. A laboratory in Winter Haven is devoted to residue analysis of citrus products only.

SEED

The Seed Section, in conjunction with the Inspection Division, enforces the Florida Seed Law, Chapter 578, and the Florida Seed Certification Law, Chapter 575, of the Florida Statutes. All agricultural, vegetable, forest tree and flower seed sold in the state must be labeled. The Seed Section tests the seed to make sure that label guarantees are correct within permitted tolerances.

Among the determinations made are germination, pure seed, inert matter, other crop seed, weed seed, noxious weed seed, hard seed, firm seed and variety. Laboratory and greenhouse tests are used in making the germination test; seed characteristics and field tests are used in making the varietal determinations. The Seed Arbitration Committee investigates complaints by farmers and recommends adjustments for seed which is not properly labeled.

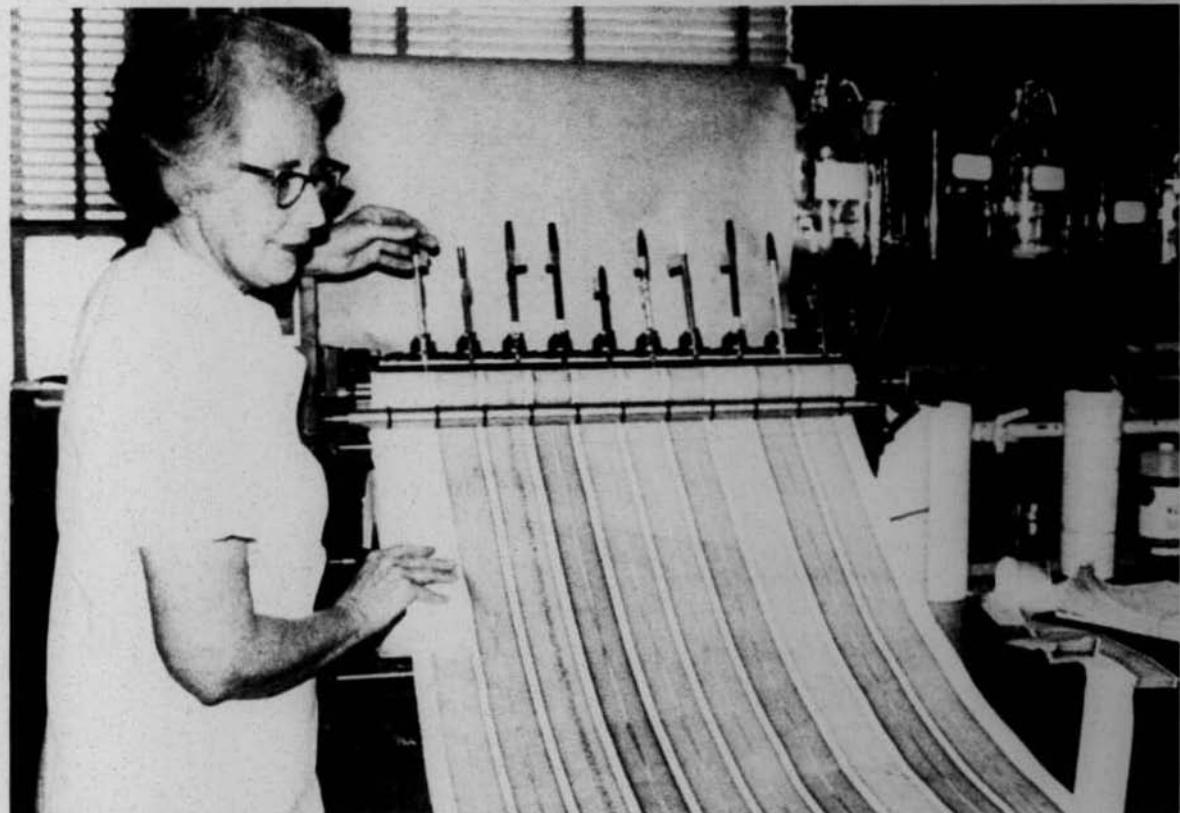
Amendments to the seed laws passed by the 1969 Legislature authorized the department to in-

spect forest tree seed and flower seed. The necessary additional equipment has been procured and examinations are now in progress. The Seed Section is now conducting field varietal tests.

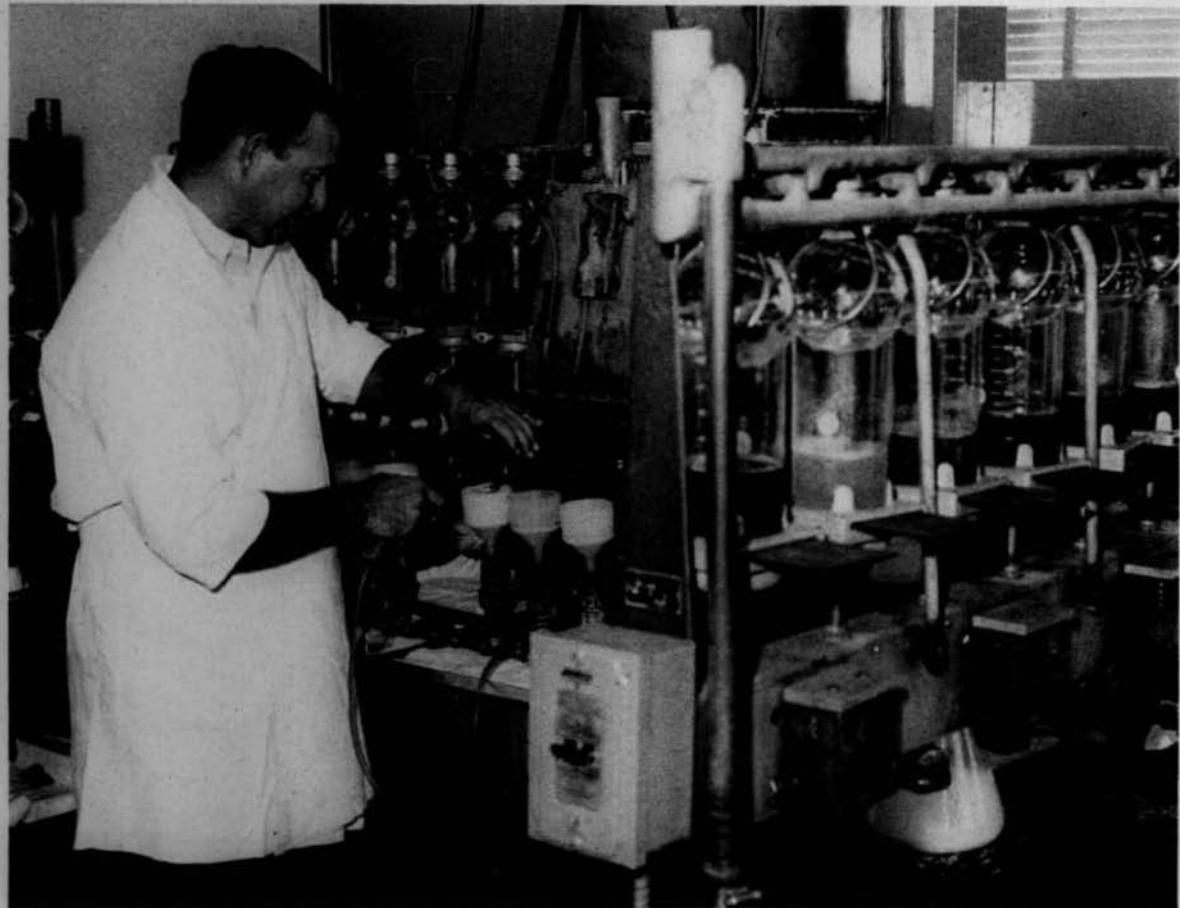
FEED

It is the function of the Feed Section to make analyses of official and special samples of feeds. The methods of analysis used are specified in "Official Methods of Analysis of the Association of Official Analytical Chemists."

Analyses include moisture, protein, fat, fiber, ash, urea or equivalent protein from non-protein nitrogen, brix, calcium, phosphorus, salt, iron, copper, cobalt, magnesium, manganese, and zinc. Analyses are conducted for feed additives used as coccidiostats, growth promoters and wormers: amprolium, arsanilic acid, carbarsone, furazolidone, nitrofurazone, nihydrazone, nicarbarzin, 3-nitro-4-hydroxyphenyl arsonic acid, phenothiazine, piperazine, sulfamethazine, sulfaquinoxaline, and zoalene.



Commodity testing involves hundreds of items ranging from ball point pens, seen here, to quality of paints, textiles, and cleaners. Commodities found deficient are expelled from the state purchasing system. Most manufacturers hasten to improve any product found inferior.



The number of determinations of vitamin A has been increased. Antibiotics analyses for chlortetracycline and oxytetracycline in feed are made in the food microbiology laboratory. Occasionally, and upon special request, additional analyses are made.

A system of preliminary reporting of protein has been started. Participation in check sample programs with other control and industry laboratories has been maintained. Of considerable value to farmers is the forage testing and evaluation program being continued with the Florida Agricultural Extension Service.

FOOD

The Food Section is responsible for detecting violations in the food portion of the Florida Food, Drug and Cosmetic Law, Chapter 500 of the Florida Statutes.

Fiber analysis is conducted in feed laboratory of Chemistry Division. Samples of commercial livestock feed get meticulous attention.

Methods include analyses for ingredients or microorganisms injurious to health; determination that foods are manufactured from clean, wholesome raw materials in sanitary establishments; determination that labels are true, informative and not misleading; and application of standard regulations and criteria for specific food products.

The Food Laboratory continued participation in the joint federal-state cooperative program on the measurement of non-functional slack fill in food packaging. In addition, special surveys and analyses concerning enriched bread and cereal products and certain refrigerated perishable seafoods were undertaken.

The Food Laboratory also continued participation in the joint federal-state cooperative program with the Food and Drug Administration on food

(Cont'd P-22)

Sample Preparation and Supply

1968-70 1970-72

Official, Check and Miscellaneous Fertilizer Samples Prepared	18,946	21,944
Lime & Dolomite Samples	1,218	867
Official & Special Feed Samples Prepared	12,688	17,070
Pesticide Samples Prepared and Weighed	11,123	13,860
Total	43,975	53,741

Fertilizer

1968-70 1970-72

Total Samples Analyzed	15,607	17,609
Number Deficient	2,389	3,061
Number Legal	13,215	14,508
Total Determinations Made	184,448	192,528

Pesticide

1968-70 1970-72

Official Samples Analyzed	9,607	12,385
Deficient & Misbranded Samples	1,208	1,439
Total Determinations	19,585	27,485

Pesticide Residue

1968-70 1970-72

Number of Samples Analyzed	13,173	19,342
Number of Samples Found Adulterated	225	168
Number of Determinations	14,841	21,203

Seed

1968-70 1970-72

Number of Samples	15,232	18,814
Number Found Legal	13,671	17,090
Number Found Illegal	1,561	1,715
Total Determinations	51,828	64,611

Feed

1968-70 1970-72

Number of Samples Analyzed	10,755	13,201
Number of Samples Illegal	1,308	1,678
Number of Samples Legal	9,447	11,523
Total Determinations	99,737	126,370

Food

1968-70 1970-72

Number of Official Samples	6,587	13,650
Number of Samples Legal	5,138	9,443
Number of Samples Illegal	1,449	4,207
Total Analyses Performed	66,095	134,097

Commodity Testing

1968-70 1970-72

Total Samples Checked	2,060	2,128
Total Tests Made	13,339	20,530
Total Tests Passed	10,885	17,574
Total Tests Failed	2,454	2,956

labeling requirements of the Fair Packaging and Labeling Act.

The Food Laboratory began routine participation in a round-robin check sample program for meat analyses with USDA. The laboratory also began routine involvement with FDA in a check sample program in food microbiology. At least 10 collaborative methods were investigated during this year, and work concerning these new methods reported to the corresponding federal agencies involved.

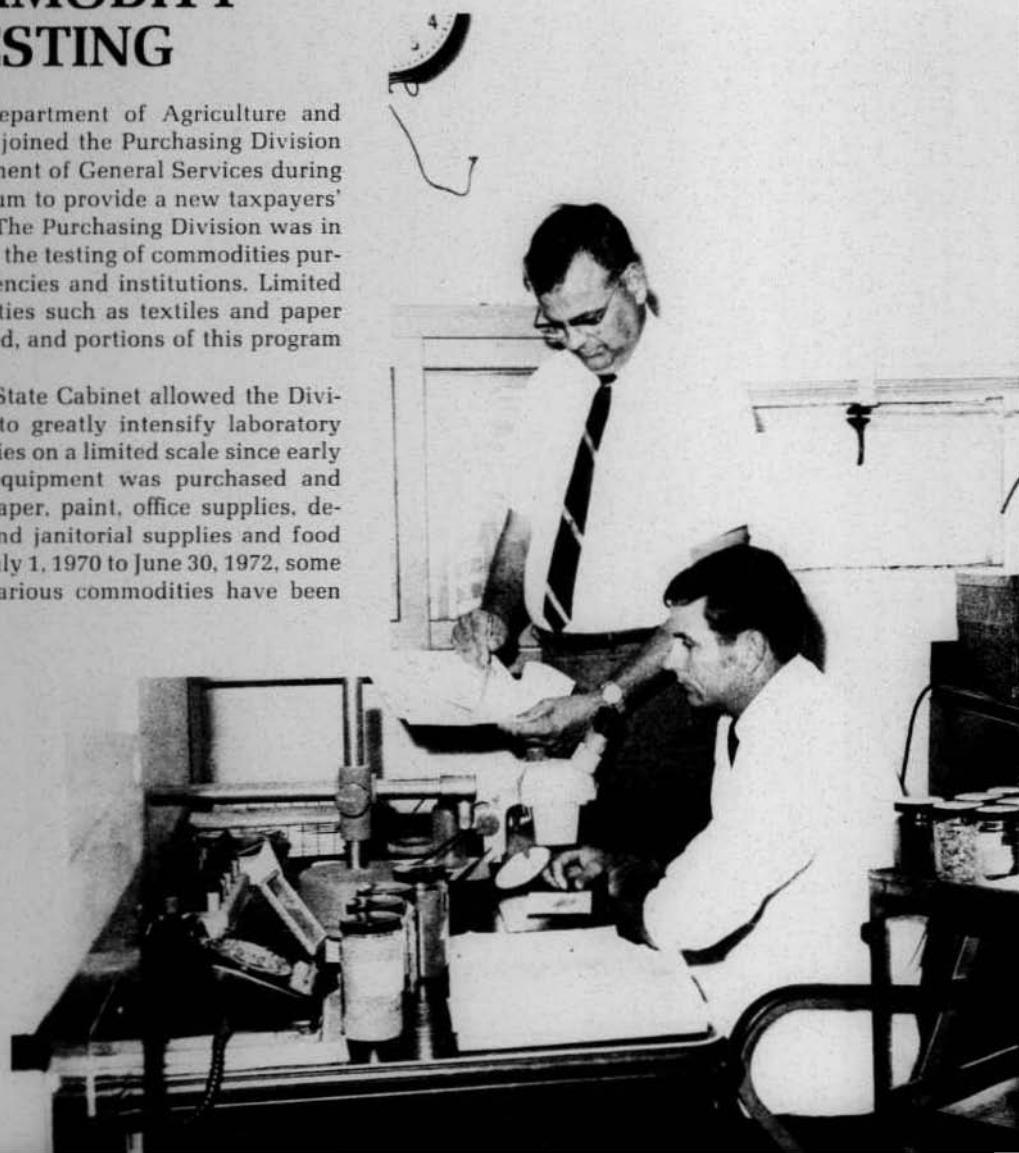
The analyses of foods labeled as "organic" were broadened, some 400 products investigated, and a nation-wide recall of certain brands of noodles was investigated.

COMMODITY TESTING

The Florida Department of Agriculture and Consumer Services joined the Purchasing Division of the State Department of General Services during the previous biennium to provide a new taxpayers' protection service. The Purchasing Division was in need of facilities for the testing of commodities purchased for state agencies and institutions. Limited testing of commodities such as textiles and paper goods was conducted, and portions of this program were expanded.

Action by the State Cabinet allowed the Division of Chemistry to greatly intensify laboratory testing of commodities on a limited scale since early 1967. Specialized equipment was purchased and clothing, textiles, paper, paint, office supplies, detergents, sanitary and janitorial supplies and food were tested. From July 1, 1970 to June 30, 1972, some 1,991 samples of various commodities have been tested.

Thousands of samples were analyzed and determinations made in Chemistry Division laboratories. Many samples for laboratory testing are received from other divisions.



Consumer Services

In 1969 when Florida's state government was reorganized, the Office of Consumer Services became the Division of Consumer Services. The name of the department was changed at the same time, but this did not mean that the department was doing something new; it was simply a full acknowledgement of the role the Department of Agriculture has played in protecting consumers since the department's inception in 1889.

The division's goal is to foster fair dealing and honesty in the marketplace and to instill in consumers a justifiable confidence that they will get fair treatment in dealing with business.

CONSUMER EDUCATION

The Division of Consumer Services is committed to the philosophy that an informed consumer is the best protection against fraud. The consumer education function of this division has been accomplished through news releases to the various communications media, monthly newsletters, in speeches, seminars, by the distribution of printed literature, and through telephone calls. For example:



Although Consumer Services is one of 11 divisions comprising the department, virtually all departmental effort is on behalf of the consumer. Unknown perhaps to this shopper, food store inspectors regularly visit wherever she shops for food, assuring accuracy of weighing and measuring devices, proper packaging, proper storage and refrigeration of perishables, even canned goods and produce. Fair value, correct labeling, purity and wholesomeness are major elements in the total departmental program.

1. A monthly newsletter, "What's Cooking of Consumer Interest," is mailed to 4,000 households.
2. Approximately 6,000 households are reached through numerous speeches, educational seminars, and other types of public meetings conducted by personnel of this division each month.
3. Each month the division mails out an average of 7,500 pieces of educational literature on how to buy, use, and take care of consumer products.
4. Approximately 50,000 households in Florida are reached each month with our consumer alert news releases to radio, television, and newspapers.

CONSUMER PROTECTION

This division is involved in receiving, classifying, and investigating complaints, and taking corrective action whenever possible. For special assignments in specific cases, personnel from other divisions of the Department of Agriculture and Consumer Services are called upon for needed supplementary service. The Division of Chemistry, Inspection, and Standards work closely with Consumer Services in the analysis of questionable products and the enforcement of state law where products are found to be substandard. Enforcement is usually administered in the form of injunction after appropriate hearings.

Some 6,803 consumer complaints were received by the Division of Consumer Services during the 1970-72 biennium. The most numerous areas of complaint were, in descending order:

1. Autos and Accessories
2. Food
3. Mail Order
4. Home Construction and Maintenance
5. Mobile Homes
6. Appliances
7. Vacation Schemes
8. Finance
9. Franchises
10. Advertising and Sales

During the last year, 12,034 pieces of mail regarding complaints were mailed from the Tallahassee office; and 8,279 pieces of complaint mail were received in the Tallahassee office.



The Division of Consumer Services continues to build a better marketplace for all consumer-shoppers. The division, activated in 1969, stresses consumer awareness as best possible key to consumer protection. During the biennial period, thousands of complaints were received. Litigation was necessary in some cases, though oftentimes reconciliation of a complaint is voluntary after notice of the initial infraction reaches the department.

CONSUMER SAVINGS

A survey of complaints where an exact figure was on record revealed that \$151.60 was the average savings for each consumer.

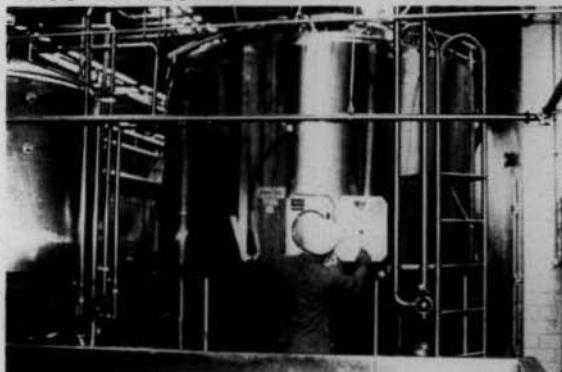
However, it should be noted that many cases are resolved to the satisfaction of the consumer, but no actual dollar value is stated in the file. Not included in the above figure is one case wherein a number of Cuban refugees received refunds of \$243,000 from a dubious promotional scheme as a direct result of the efforts of personnel of the Division of Consumer Services.



Dairy Industry



Dairy plant specialist for Division of Dairy Industry checks code numbers on filled containers at commercial dairy processing plant.



Coned bottom processing vat is used for pasteurizing cream and yogurt. Dairy specialist reads time-temperature recording thermometer to see if level meets legal tolerance.



Control unit for high temperature milk pasteurizer is checked for accuracy. This unit is sealed by FDA&CS dairy specialist to prevent tampering.

The purpose of Chapters 502 and 503 of the Florida Statutes is to assure the people of Florida that milk and milk products, industry trade products, and frozen desserts offered for sale to the public are produced under sanitary conditions, are wholesome and fit for human consumption and are correctly labeled as to grade and quality. The Division of Dairy Industry is charged with the enforcement of these statutes.

MILK AND MILK PRODUCTS

At least four times each six months, dairy specialists visit all producers in their areas, make a visual inspection, and collect a sample of the producer's milk for analysis in a division laboratory. A minimum of two official inspections is made on each farm each six months.

Among the 21 categories for inspection are the cows, the milk barn, stable or parlor, the milkhouse or milkroom, cleaning facilities, laboratories, water supply, utensils and equipment, milking procedures, personnel, cooling, vehicles, insects and rodents.

Dairy specialists make milking-time inspections to insure proper handling and also make non-milking-time inspections to insure that the equipment is properly cleaned. If a producer's milk is found to be out-of-grade, assistance is given by specialists to locate the source of the problem.

Regulations have been established for sanitary control in the production of plastic containers and plastic-coated paper. Carton fabricators are inspected for proper construction and sanitation. Samples of the containers are periodically submitted to regulatory laboratories for testing to prove the containers meet bacteriological requirements.

Items inspected in container fabricating plants include floors, walls, ceilings, doors and windows, lighting and ventilation, water supply, sanitation facilities, storage, disposal of wastes, locker and lunchrooms, waxes, adhesives, inks, wrappings and shipping.

Dairy specialists conduct official inspections of all milk processing plants and check the plant's pasteurization equipment at least once every three months. Visual inspections are made approximately once a week. The dairy specialists also inspect the



Dairy specialist inspects bottle filler operation for code, seal, and proper fill. Comparatively small volume of milk is still retailed in glass containers.

bulk hauling equipment used to transport milk from the farms to the processing plants, and checks the individual packages of milk and milk products to see that they conform with labeling laws so that the consumer is not misled. A new "Bulk Milk Hauler's Manual" has been published and a bulk milk hauling training program put forward.

The dairy specialists also collect samples of each product processed in each dairy plant at least four times every six months and submit them to

a division laboratory for analysis. Recheck samples are collected when a possible discrepancy appears on sample analysis.

In 1972 the Florida Legislature passed a Shelf Life Law which requires that a date be placed on all fresh fluid milk product containers after which the product may no longer be offered for sale. Dairy specialists insure that this date is on the containers and collect a series of shelf life samples from each dairy plant four times per year.

FROZEN DESSERTS

The 1969 session of the Florida Legislature passed a new Chapter 503 which updated the Frozen Desserts Law being enforced. Under this law, wholesale operations are licensed, inspected, and sampled similar to the procedures followed for milk and milk products. Dairy specialists also enforce the chemical and bacteriological standards as well as labeling requirements prescribed in the statute.

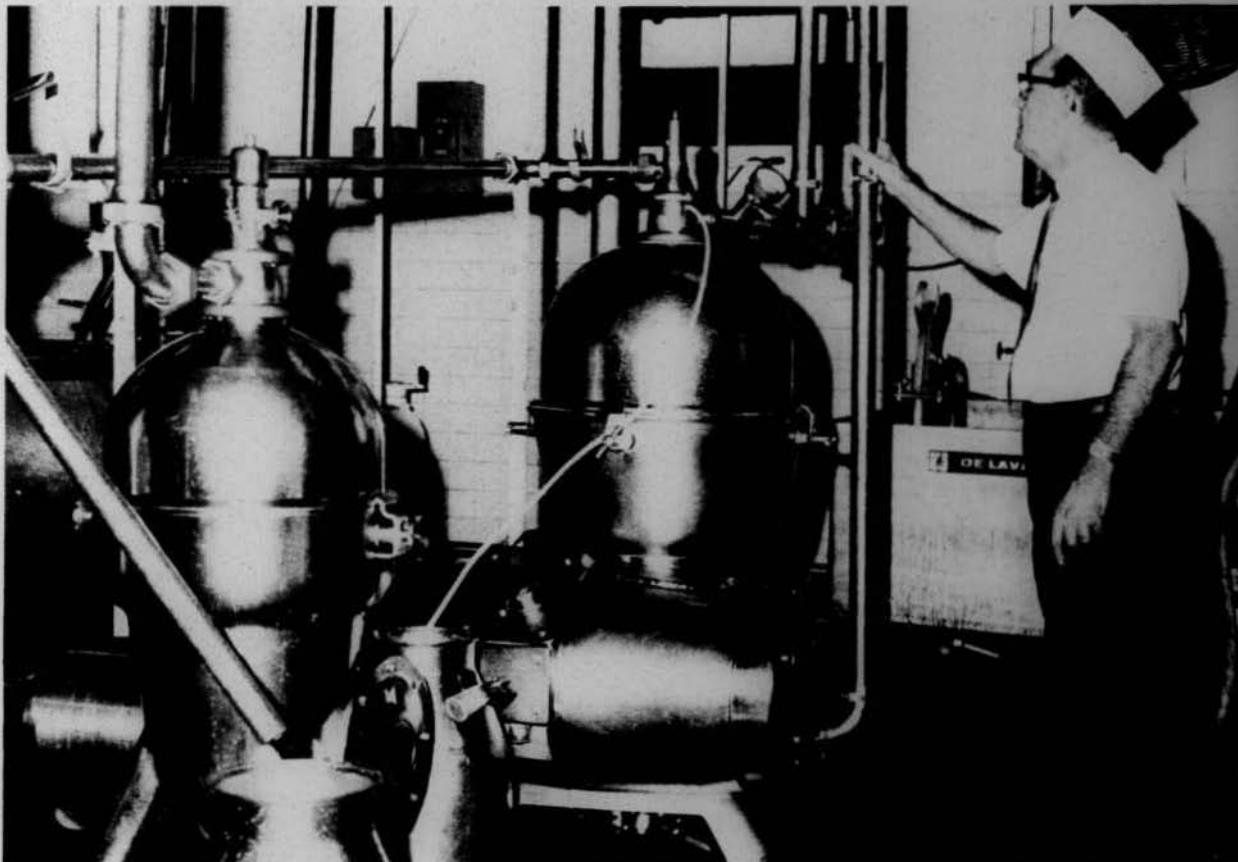
DAIRY PRODUCTS LABORATORIES

Dairy products laboratories are geographically located throughout Florida, with mobile laboratories in Tallahassee, Pompano Beach and on Interstate 75 north of White Springs. Permanent

laboratories are located in Pensacola, Jacksonville and Winter Haven. These laboratories analyze all samples of milk, milk products and frozen desserts forwarded by dairy specialists, other agencies or industry. The results of these samples are used in the division's regulatory program.

The mobile laboratory on Interstate 75 analyzes samples of all raw milk imported into Florida from other states. The permanent laboratory in Winter Haven is the division's central laboratory and the department's Dairy Laboratory Certification program is conducted from this location. The Dairy Division is planning another permanent facility at the new Port Everglades Laboratory Testing Complex.

Dairy specialists either bring the samples to the laboratories or ship them in specially designed containers so that they arrive at the laboratory in the proper condition for analysis. The dairy prod-



General sanitation inspection is conducted frequently at dairy farms and plants by Division of Dairy Industry personnel.

FLORIDA MILK & FROZEN DESSERTS LAWS ENFORCEMENT

	1971-72
Number of official inspections pertaining to milk industry & frozen desserts industry	14,242
Number of analyses run on milk, milk products and frozen desserts samples	177,691
Number of samples of milk, milk products & frozen desserts	29,537
HTST pasteurizer checked	497

ucts laboratories also run shelf life tests on all fresh fluid milk and milk products to assure consumers in Florida that the milk and milk products which they purchase will be completely acceptable for a reasonable period of time after the consumer receives it.

All laboratories are manned by chemists, laboratory technologists and technicians, and these laboratories and personnel are certified by the American Public Health Association, the Association of Official Agricultural Chemists, and the United States Public Health Service.

The analyses which these laboratories conduct aid the division in its regulatory program, the industry in quality control, and the consumer by determining compliance of bacterial, organoleptical and chemical standards for milk, milk products and frozen desserts.

At milk tanker, truck specialist from Division of Dairy Industry verifies dated tag which shows when, where, and by whom tanker was last cleaned and sanitized.



Dairy plant specialist at plastic blow-mold machine inspects gallon plastic jugs manufactured at dairy plant. Jugs are embossed.



FORESTRY

Responsibilities and functions of the Division of Forestry are covered in Chapter 589.04 of the Florida Statutes: "to assist and cooperate with federal and state departments or institutes, county, town, corporation or individual, to gather and disseminate information in regard to forests, their care and management, to prevent and extinguish forest fires, and enforce laws pertaining to forests and woodlands."

While the prevention and control of wildfires is a major responsibility of the division, employees join in protecting, improving and perpetuating the forest resources of Florida when the fire situation is under control.



Tropical Forester is seen with India rosewood seedling, a promising variety introduced with commercial possibilities. Foundation effort to offer this variety for sale was conducted during this report period.



The cost of forest fire is staggering in lost timber of commercial value, destruction of seed and seedlings, damage to watershed, and destruction of habitat for wildlife.

ADMINISTRATIVE UNIT

This unit functions as an extension of the division director's office in the planning, development, and supervision of the division's functions and programs. It assists the bureaus in the performance of their assigned responsibilities.

Specific functions include planning and development of long and short-range goals and objectives, budgeting systems development; preparation and coordination of the division's budget, purchasing and property accountability; inspection and research necessary to develop or revise division systems and procedures; and personnel recruitment, employment, training and development.

Technical assistance to the other bureaus in outdoor recreation planning, development and operation is provided, while internal audits and inspections of field offices are carried out by the Administrative Unit.

The division's safety program, directed by the forest investigator supervisor, is an additional responsibility. And a good safety attitude is maintained by the Division of Forestry's employees through a program of training and safety meetings. A defensive driving course, periodic Red Cross first aid training, and a program of awards for safe driving and accident free work days are included.

FOREST MANAGEMENT

The Forest Management Bureau is charged with the responsibility for state forest administration, forest tree improvement and nursery production, cooperative forest management, forest insects and diseases, forest products utilization and cooperative research.

COOPERATIVE FOREST MANAGEMENT

The Cooperative Forestry Assistance Act passed by the 1971 Legislature heralded the beginning of forestry assistance for Florida's cities. Six urban forestry projects were added during 1971-72 alone.

Forty professional foresters provided land-owners with management services through 38 projects. These foresters handled 4,418 cases involving 595,389 acres. Special assists to city dwellers by urban foresters totaled 7,560.



Withlacoochee State Forest manager explains map of Butchenbaugh Mines Area to two young riders. The 2,600 acre tract was set aside for motorcyclists.

REFORESTATION

Seedlings totaling some 129-million were produced in the three division nurseries at Punta Gorda, Chiefland and Munson. Florida's pulp and paper companies produced 103-million for a total 232-million tiny trees produced and planted.

During the period, 4.4 acres were added to the seed orchards making the total acreage 744.4. Grafts were limited to Longleaf Pine and Choctawhatchee Sand Pine. The first lot of improved Slash Pine seed was planted in the nurseries.

A highlight was the seedling packet sale program initiated on a trial basis at Jacksonville, Gainesville and Orlando. The packets, each containing a dozen mixed species, were sold to the general public for \$1.00 each, and the response was overwhelming. Plans were made to go statewide with the program.

FOREST INSECTS AND DISEASES

Statewide aerial insect and disease surveys revealed losses by forest pests amounted to 306,000 cords with a value of \$7,600,000.

Forest insect pest epidemics occurred and ground surveys were conducted and protective measures recommended.



At environmental education center, Cary State Forest, forester on nature trail points out wonders of the woods. Many thousands of students and other visitors covered the trail during past two years.

RESOURCE DEVELOPMENT

In cooperation with the Vero Beach-Indian River County Planning Commission, a report on forest resources of Indian River County was developed. It includes condition and uses of the forest resource, future urban and rural forestry needs, and guidelines for planners to use in the effective development of the resource.

UTILIZATION AND MARKETING

Two specialists handled 275 requests covering such areas as plant management, machine processing, engineering and wood technology, seasoning and treating, feasibility and economic studies plus lectures and other educational involvement.

Two major publications came off the press: "Bark and Greenwood Residues in Florida" and "Secondary Wood-Using Industries in Florida."

STATE FORESTS

The four state forests of Florida are Blackwater River near Milton, Withlacoochee outside Brooksville, Pinelog northwest of Panama City, and Cary near Jacksonville. Total area is 306,000 acres.

Recreational use of Blackwater River and Withlacoochee continued to climb to new highs. Blackwater River developments included the completion of Hurricane Lake, dam construction by the Game and Fresh Water Fish Commission, the Coldwater Horse Trail complex, Jackson Trail hiking shelters, and the Juniper youth organization campground. While at Withlacoochee, a 2,600 acre tract in the Butchenbaugh mine area was set aside for motorcyclists, and complete facilities were incorporated into the development of the 27 mile-long Citrus Horse Trails which were dedicated by the Commissioner.

In cooperation with the Game Commission, plans were made to include 165,000 acres of Blackwater River State Forest in the game management area, while an 8,000 acre quail management area was set aside on Withlacoochee.

COOPERATIVE RESEARCH

Forest research performed by the Southeastern Forest Experiment Station at its Ft. Myers, Olustee and Marianna Research Centers continued to be supplemented by the division.

Of particular note was the Eucalyptus Study relating to production of Eucalyptus timber in south Florida. Plans were laid involving the test planting of 50,000 seedlings in Hendry County which, if successful, could lead to additional planting.

TROPICAL FORESTRY RESEARCH

The Tropical Forestry Project continued its research concerning exotic species which may thrive in south and central Florida. Four more species of Acacia were tested and found suitable for planting on salt water beaches. A departure from the open-bed bare-root Eucalyptus production was made by growing seedlings in "speedling" trays.

FIRE CONTROL

In 1972 the Legislature passed the long awaited statewide protection bill, and by the end of the fiscal year, fire control arrangements were being made in the four remaining counties — DeSoto, Hardee, Martin and Hendry.

The division's delegated responsibility from the Department of Pollution Control to authorize outdoor burning for agricultural and silvicultural purposes became a reality.



This mechanical tree shaker facilitates gathering of pine cones for seed. Seen in photo is portion of Munson nursery superior tree orchard.

AIRCRAFT PROGRAM

The severity of the fire season in 1970-71 brought on a sharp increase in air activity. Heavy air tankers on contract to the U.S. Forest Service were used on numerous occasions, and a snorkel-loading Canadian CL-215 amphibious air tanker was pressed into service in south Florida with some success. The division's smaller Beaver tanker again proved the desirability of having state-owned aircraft ready for instant response. During 1971-72 a second Beaver was put in operation.

Helicopters were used several days in Collier County to solve the extremely difficult problem of moving men, fuel, food and parts into areas which could be reached only after an eight-hour jeep ride. Negotiations were started to make available any military resource in the state, helicopter or otherwise, under conditions described as "imminently serious." Similar arrangements were completed with the Florida National Guard.



This single engine Beaver adapted as aerial tanker has proved its usefulness in fighting forest wildfire in remote areas.

RURAL FIRE DEFENSE

The population buildup in rural areas continued to create an increasing demand for division assistance in supplying apparatus for newly formed rural fire departments. This need, added to requests for replacement units by existing cooperators and to the limited supply of vehicles available from federal surplus stock, posed quite a problem. Even so, the Division loaned 81 trucks to cooperative fire departments while an additional 17 were assigned as replacements.

By the end of the period, 382 cooperators had responded to more than 17,000 fire calls.

Increasing interest in brush fire training prompted revision of the eight-hour training course to provide for a greater selection of elective subjects. The course offered nine electives including such subjects as Fire Ecology and Open Burning Regulations.

During the biennium, 56 eight-hour schools certified 954 trainees. These figures represent an increase of 18 and 215, respectively, over 1968-70.

FIRE CONTROL RESEARCH AND DEVELOPMENT

During late 1970, and continuing through June, 1971, Florida experienced a severe drought resulting in an extremely bad fire season. The majority of problem fires occurred in the sawgrass and cypress swamps of the Everglades. It was evident that conventional firefighting equipment was not adequate in that area. Various types of amphibious vehicles were evaluated in relation to their fire-fighting capabilities.

In October, 1971, the division became responsible for administering a portion of the Department of Pollution Control's "Rules on Open Burning." Specifically, the division became responsible for authorizing individuals to burn for agricultural, silvicultural and land-clearing purposes. While the regulations allowed the division to permit burning at night when atmospheric conditions were favorable for good smoke dispersion, they provided no criteria for determining those conditions.

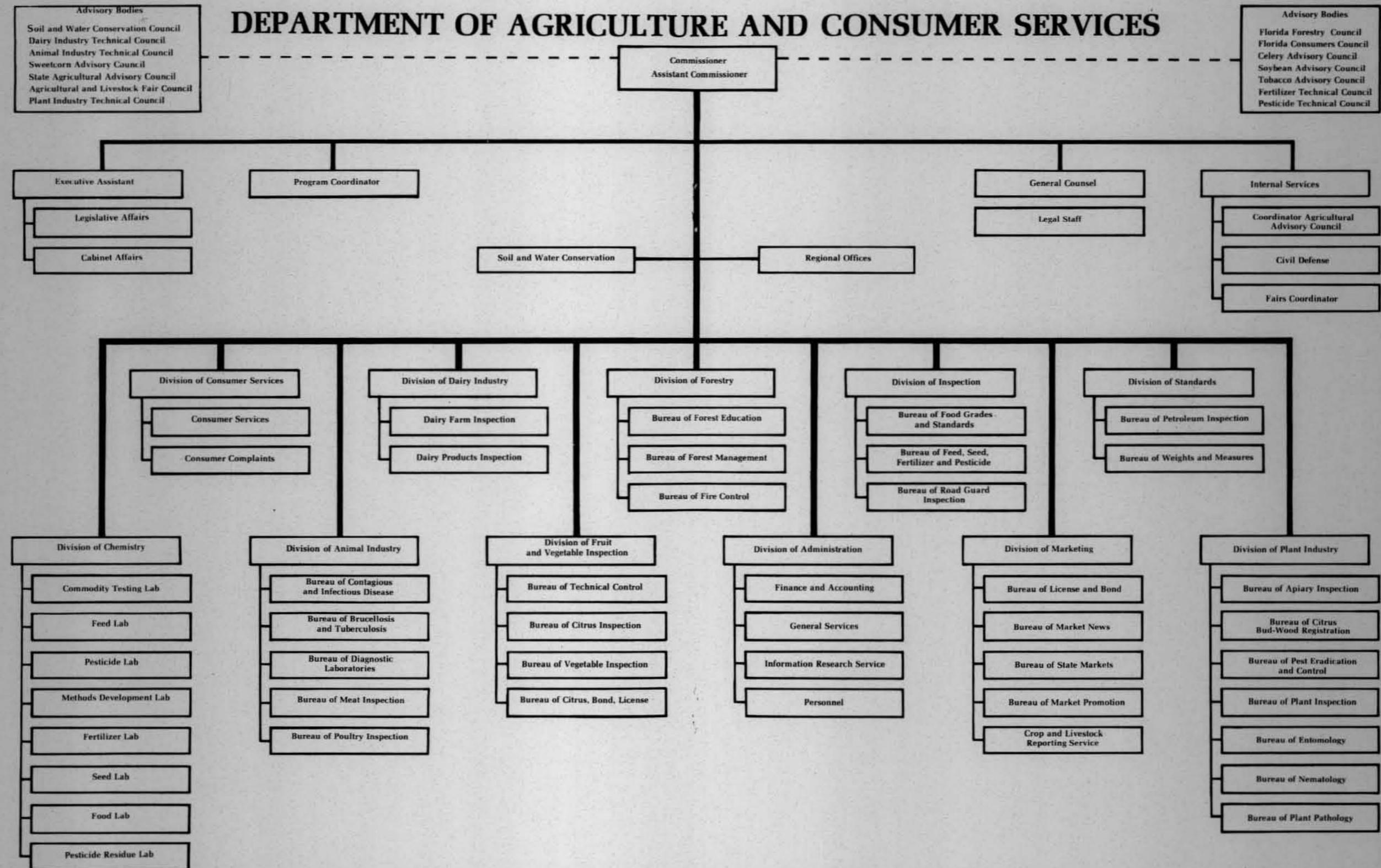
Through the research efforts of the National Weather Service forestry meteorologist, a "stagnation index" was developed which provided that needed criteria.

(Cont'd P-36)



This fire suppression vehicle moves easily through a south Florida canal. Special "air bag" tires also allow rapid movement over terrain.

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES



LAW ENFORCEMENT

Preliminary investigations are made by fire-fighting crews to determine the cause of all fires. Subsequent action, if necessary, is taken by investigators. During the report period, 17,044 violations were handled by the division. Of these 543 resulted in arrests, 30 paid for damages, and 293 suppression cost cases were closed. Also, 1,817 notices of unlawful burning were issued to negligent violators of Florida's Forest Protection Laws. Two \$200 and two \$50 rewards were paid from the Florida Forest Arson Fund during the biennium.

EQUIPMENT MAINTENANCE AND DEVELOPMENT

An amphibious vehicle was purchased for use in the Ft. Lauderdale District. Mounted on low-pressure cleated rubber air bags, the unit is capable of crossing a canal with a half tank of water and drafting a full tank on the other side. It has a 220-gallon tank with pump and appears to be very effective in sawgrass. Traveling along, it has the added feature of matting the grass and creating an effective firelane.

Likewise, an airboat was built to division specifications for suppressing sawgrass fires burning above water — a common occurrence in the Everglades. Neither of these vehicles does any permanent damage to the fragile wetlands, and should not be criticized as are the half-track "swamp buggies" which most hunters use in the area.

COMMUNICATIONS

During the biennium, communications planning was directed toward system centralization and alignment, and a long range program was set in motion to improve test equipment and facilities. To accomplish this, the division purchased transistorized mobile and tower radios as well as oscilloscopes and solid state frequency and modulation meters.

Centralized dispatching was put in operation in several districts and is proving to be a highly efficient system.

FOREST EDUCATION

An Environmental Education Center with nature trail and teaching pavilion was completed at Cary State Forest. This facility near Jacksonville provides educators in Duval and surrounding counties with a valuable teaching tool.

The bureau again conducted the annual Forestry Training Camp, and forestry "Field Days," administering also a statewide "School Forest" program for the Future Farmers of America.

The bureau made releases to newspapers, wire services, radio and television. General information was disseminated via folders, booklets, brochures and exhibits. A library of educational films is maintained primarily for use by public schools.



Superior tree program resulted in straighter, faster growing trees (top). Special scions, grafting, and cross-pollination — along with selection and progeny testing — made possible development of superior seedlings. Ranger training (below) prepares inexperienced fire-fighters for rigors of a real wildfire campaign. Division conducts two schools each year, graduating approximately 60 rangers each term.



Fruit and Vegetable Inspection

The Division of Fruit and Vegetable Inspection is responsible for the inspection of all citrus, both fresh and processed, in accordance with the provisions of the Florida Citrus Code (Chapter 601), regulations of the Florida Department of Citrus, and regulations of Federal Marketing Committees. Inspection is conducted on vegetables, melons, nuts, and miscellaneous fruits as may be requested, or as may be required under marketing agreements and price support programs.

Inspection of fresh fruit and vegetables is performed by Florida Department of Agriculture and Consumer Services inspectors through cooperative agreements between the FDA & CS and the United States Department of Agriculture.

Inspection of the processed pack is performed by the USDA Processed Foods Inspection Service, through contractual arrangements with the Commissioner of Agriculture.

VEGETABLE

The Bureau of Vegetable Inspection furnishes inspectors to growers and shippers to determine grade, quality, and condition of various fruits, nuts and vegetables. Limes, avocados and tomatoes are inspected under federal marketing agreements and orders and farmers' stock peanuts under the Price Support Program.

With the exception of limes, avocados and tomatoes, vegetable inspection service is furnished to growers on a voluntary basis.

A federal marketing agreement and order has been in effect for a number of years on fresh tomatoes shipped from the production area of Florida. As volume of tomatoes increased, more inspectors were needed. The total number of all inspections has increased to 27,400,000 units. Certificates issued increased to about 72,000 annually.

More effective production for producers and processors has resulted from new techniques developed by the bureau. For example, the human element has been eliminated from the inspection of farmers' stock peanuts. Developed and in operation are pneumatic samplers, mechanical dividers, presizers, shaker and sizer screens, shellers, splitters and foreign material dividers.

CITRUS BOND AND LICENSE

The Citrus Bond and License Bureau is concerned with the enforcement of all sections of the Florida Citrus Code, particularly those pertaining to citrus fruit dealer's bond requirements and issuance of citrus fruit dealer's licenses, citrus fruit dealer's agent registrations, packing house and cannery registrations and field box mark or brand certificates.

Administrative responsibilities include extensive field work in the investigation of purchases or sales of citrus fruit in all forms. A complete listing of citrus fruit dealers and their agents is compiled several times each season.

Inspection fees, license fees, agent's registration fees, field box registration fees and cash bonds are accounted for and forwarded to the fiscal office. Money from surety companies is received and disbursed to complainants.

All citrus fruit dealers, except bond exempt dealers or gift fruit shippers handling less than 2,000 boxes, are required to make monthly reports of the amount of fruit handled. These reports are posted to the proper accounts and those dealers near the maximum number of boxes they may handle are notified that an increase in the amount of their bond may be in order. The dealers who have fruit exempt from bond coverage must have this fruit approved by the Florida Department of Citrus.

Complaints against a fruit dealer are placed on docket and notice is sent to all interested parties, answers are acknowledged and, if necessary, hearing notices and subpoenas are issued. Hearings are held and transcripts forwarded to the Commissioner. Upon receipt of the Commissioner's order, all interested parties are furnished copies, and a final dismissal is issued following compliance.

TECHNICAL CONTROL

The responsibilities of the Bureau of Technical Control include extensive administrative, laboratory, and field duties. Much of the routine work involves analysis and approval of fruit treatment materials, preparation and issuance of field equipment and chemicals for maturity testing and internal quality, and enforcement of the arsenic spray program.

Coordination of fresh fruit testing at processing plants with the finished product inspection, furnishing technical consulting services to the industry, and monitoring of pesticide residues on citrus fruits and in citrus products was achieved. Auditing and verification of yield data at processing plants were also included.

At fresh fruit packing houses, additional responsibilities of the bureau involved the setting, maintenance, and servicing of the more than 100 AMC Model 2701 single-head extractors in the test-rooms of packing houses. This is a continuous requirement, but particularly so during the fall season.

Service and maintenance of the FMC Model 091B testroom extractor at processing plants are also the bureau's responsibility. In the interest of uniformity of inspection at all plants, the more than 50 field extractors were constantly rechecked by means of the mobile extractor control unit. This is also a continuous requirement, but most particularly during the seven-month processing season.

Practically all citrus fruit at processing plants is now purchased or handled on the basis of internal quality, as certified by inspectors of the division. A major responsibility is improvement in the load evaluation procedures at those plants, including better testing methods and equipment. This requires a continuing research effort by the Florida Department of Citrus, the USDA, and the Florida Department of Agriculture and Consumer Services. The Technical Bureau supervises that joint program.

As a part of this research effort, beginning at mid-year 1970 a new project to automate testroom procedures and equipment at processing plants was initiated. This included a pilot testroom with experimental facilities to record and print-out all weighings, per cent acid, degrees Brix, and with all calculations and certification performed through a computer and teletypewriter.

CITRUS

The bureau of Citrus Inspection is responsible for the inspection and certification of all fresh citrus fruit shipped from Florida, both interstate and intra-state, and all fresh citrus fruit utilized at canning plants.

All processed citrus products packed and shipped from Florida are inspected and certified under a continuous inspection program furnished through contract with the USDA.

Enforcement of the state citrus laws and Department of Citrus regulations is carried out by field supervisors and inspectors.

The Road Guard Service cooperates by checking all truck passings of citrus fruit for proper certificates and load manifests.

Inspection of all roadside citrus fruit stands and all gift fruit packing houses is now mandatory. This program has brought about a vast improvement in the quality of fruit handled by these outlets.

During the summer months field personnel implement the arsenic spray program. Other operations include the personnel, statistical, and fiscal sections.



Florida's multi-million annual crop of fruits and vegetables is packed under rigid surveillance. This crate of celery receives last check-over before sealing and shipment to out-of-state market.

TRAINING OFFICE

During the biennium the Training Unit conducted refresher classes for approximately 800 inspectors returning from summer assignments. Changes in regulations, discussions of grades and other information relative to inspection work were included in these classes. These classes were conducted by lecture together with film strips, slide presentations and actual specimens of fruit.

Practical exercise and application of grade and maturity work are given to all men. Approximately 75 new inspectors were given individual training together with several days of practical experience before the men were put into the field.

This office in conjunction with the USDA has assembled an "Official Visual Aids for Florida Citrus" for use in all citrus fruit houses. This booklet is also available to individuals. Photographs show the various tolerances of defects for oranges, grapefruit and tangerines. It is felt that by using this type of visual aid our inspectors can perform a more uniform job of fresh fruit inspection.

STATISTICAL

The Statistical Section audits thousands of fresh and cannery certificates for billing and statistical purposes for the division. A most comprehensive auditing is required to obtain a correct billing for each shipper or processor, and a close check is made of fresh fruit certificates to see that the grade and sizes meet Growers Administrative Committee Regulations.

In addition, other forms audited or checked are packing house manifests, inspection preliminary note sheets, cannery memos, canner's reports of fresh fruit receipts, cannery work sheets, truck passing reports, California shipping permits, partial

load clearance for Texas, Arizona and Hawaii, fruit destruction and regrade forms, Plant Board scale certificates, and USDA daily inspection reports.

This section also receives daily information from field offices regarding fresh shipments, and fruit received at processing plants for the previous day. This information is furnished to other statistical installations, and offices of the citrus industry, and relayed to radio and television stations.

During the past biennium, daily, weekly, monthly and annual reports on movement of Florida citrus were also issued, in addition to reports on diverted fruit, fruit destroyed and fruit shipped out under containers by special Florida Citrus Commissioner permits.

PERSONNEL

Each season the Personnel Office is responsible for handling approximately 500 field inspectors, most of whom are employees needing to be reassigned each season. The section has liaison with the USDA Personnel Office in Washington, D.C. and personnel officers in various states to maintain a full working force for the Inspection Service in Florida and to provide these various states with inspectors when their needs arise.

The section also keeps personnel records for all employees in the division.

FISCAL

Revenue from citrus inspection in the state is a Fiscal Section responsibility. A system of cost accounting accurately determines the cost of inspection of fresh fruit to packing houses and canneries. The industry is furnished with information necessary to establish fees for inspection based on the actual cost.

Necessary purchasing and expenditures are also the responsibility of this section. Payrolls for the entire Division of Fruit and Vegetable Inspection are prepared. The mail, supply and duplication offices issue all administrative supplies to the field force.

The section supervises the operation of the Florida Room, the training and hearing room, all office space, and the auditorium of the Winter Haven Citrus Building. The auditorium is widely used by agricultural and governmental interests at state, county and municipal levels.



Florida is known as the nation's winter vegetable garden. Key to premium market is quality and inspection. In photo, sweet corn gets check-over.



BUREAU OF CITRUS BOND AND LICENSE BIENNIAL REPORT

1968-70	1970-72		1968-70	1970-72
2,897	2,860	Dealers posted Surety Bonds amounting to	\$29,006,500.00	\$28,955,750.00
9	11	Dealers posted Cash Bonds amounting to	62,000.00	92,000.00
		Total amount of Citrus Fruit Dealers' Bonds	\$29,068,500.00	\$29,047,750.00
		Registered Shippers and/or Canners posted Inspection Fee Guarantee Bonds amounting to—Cash	—	2,884.34
		Surety Bonds	1,199,783.14	1,261,809.34
		Total Inspection Fee Guarantee Bonds	\$ 1,199,783.14	\$ 1,264,693.68
394	337	Dealers "Advertising as Bonded Shipper" posted Performance Bonds in accordance with Chapter 57-4, Laws of Florida—Cash	—	1,000.00
		Surety Bonds	394,000.00	336,000.00
		Total Performance Bonds	\$ 394,000.00	\$ 337,000.00
195	156	Licenses issued to "Bond-Exempt Dealers"	—	—
292	224	Certificates as provided by F.C.C. Regulation No. 31, Section 3, issued on request to Dealers posting Performance Bonds	—	—
		All Citrus Fruit Dealers' Licenses Issued	3,099	3,027
		Manufacturers Licenses Issued	36	31
		Citrus Packing Houses Registered	463	458
		Canning and/or Concentrate Plants Registered	115	109
		Registered Agents of Citrus Fruit Dealers	2,170	1,743
		Complaints disposed of	230	129
		Complaints pending	147	17
		Amounts paid to Claimants by Dealers	\$ 97,342.82	\$ 166,401.76
		Amounts paid to Claimants by Sureties	\$ 277,305.99	\$ 155,455.21
		Revocation of License Proceedings	5	8
		Administrative Hearings	184	34
		Bond Increase after Notice from Commissioner of Agriculture	264	210
		Bond Increase Orders Entered by Commissioner of Agriculture	48	93
		Fines Imposed by Commissioner of Agriculture*	—	\$ 13,500.00
		Licenses Revoked by Commissioner of Agriculture	0	1
		Licenses Suspended by Commissioner of Agriculture	18	10
		Licenses Cancelled by Commissioner of Agriculture	5	24
		Complaints made by out of State Purchasers against Gift Fruit Shippers	77	108
		Amount Refunded by Gift Fruit Shippers	\$ 427.42	\$ 368.05
		Orders Replaced by Gift Fruit Shippers	29	72

*(1,200 Cases of Juice confiscated plus fines of \$13,500.00)

DISPOSITION OF FLORIDA CITRUS
(1-3/5 bu. boxes)

Certified Fresh Fruit Shipments

	1968-70	1970-72
Grapefruit	25,086,068	29,249,429
Murcotts	673,775	940,310
Tangelos	2,028,047	2,628,627
Oranges	24,165,169	25,081,064
Tangerines	4,129,778	5,101,372

Cannery Commercial			
Grapefruit	49,061,143	57,875,565	
Murcotts	1,220,547	1,512,387	
Tangelos	1,688,393	2,827,519	
Oranges	248,270,993	263,499,044	
Tangerines	1,690,536	2,892,501	
Express Shipments			
Grapefruit	610,000	249,500 *	
Murcotts	11,000	7,000 *	
Tangelos	85,000	60,000 *	
Oranges	927,000	461,500 *	
Tangerines	12,000	7,000 *	
Interstate By-Products			
Grapefruit	8,747	16,683	
Murcotts	None	None	
Tangelos	None	None	
Oranges	299,688	298,680	
Tangerines	None	None	
Intrastate Non-Commercial			
Grapefruit	2,675,106	1,203,000 *	
Murcotts	176,120	50,000 *	
Tangelos	494,257	223,000 *	
Oranges	10,286,921	4,448,000 *	
Tangerines	1,470,799	284,000 *	

*Designates 1970-71 only.

VEGETABLES, NUTS, AVOCADOS AND MELONS CERTIFIED FOR SHIPMENT

	1968-1970	1970-1972
ASPARAGUS (Bushels)	104	
AVOCADOS (Bushels)	1,000,938	1,443,486
BEANS (Bushels)	2,411	1,882
BROCCOLI (Bushels)	280	
CABBAGE (Crates)	1,430,050	1,513,565
CABBAGE (Bags)	228,240	275,605
CARROTS (Bushels)	247,935	92,372
CAULIFLOWER (Bushels)	117,164	85,111
CELERY (Crates)	5,124,156	3,826,792
CHICORY (Bushels)	40	
CHINESE CABBAGE (Bushels)	5,720	2,110
CORN (Crates)	9,915,514	10,363,907
CUCUMBERS (Bushels)	430,926	367,348
EGGPLANT (Bushels)	5,318	6,443
ENDIVE (Bushels)	3,162	280
ESCAROLE (Bushels)	2,969	25
LEMONS (Bushels)	561	19,460
LETTUCE (Bushels)	102,112	113,089
LIMES (Bushels)	1,058,766	1,379,989
NECTARINES (Bushels)		2,181
OKRA (Bushels)	402	251
PARSLEY (Bushels)	4,252	1,512
PEACHES (Bushels)	76,659	47,112
PEANUTS:		
Shelled (Pounds)	167,619,633	229,979,567
In-Shell (Pounds)		890,850
F.S. Commercial (Tons)	63,210.29	73,069.40
F.S. Loan (Tons)	6,775.98	32,499.14
F.S. Regrades (Tons)	50,846.00	43,248.53
F.S. Outgrades (Tons)	10,583.15	33,771.22
PEPPERS (Bushels)	164,727	111,990
POTATOES (100-lb. Bags)	3,240,675	2,009,376
RADISHES (Bushels)	599,396	824,024
ROMAINE (Bushels)	3,330	1,835
SQUASH (Bushels)	3,121	1,949
SWEET POTATOES (Bushels)	350	
TOMATOES (40-lb.)	25,539,205	30,038,902
WATERMELONS (Melons)	138,838	112,974
CANNERY PEAS (Pounds)	3,159,123	5,311,979



Since the mid-30's, the Nathan Mayo Building (top) has housed divisional offices and Tallahassee laboratories for the department. With the completion and activation of the New Laboratory Complex, realignment of offices is planned. Standards and Chemistry divisions are assigned modern and adequate quarters at the Complex. Photo (left) shows site of New Complex Building projected for the department. Though planning and design of the modern facility was drafted during many years as functional needs became apparent, most of the actual construction work was conducted during this report period, July 1, 1970, through June 30, 1972.

Inspection

Laws enforced by the Division of Inspection include food, poultry, egg, feed, fertilizer, pesticide, seed, seed certification and weights and measures. In addition, the division assists in enforcement of certain federal-state marketing agreements and Florida Citrus Law. Several of these laws were modified during the last biennium to keep abreast of advances in manufacturing technology and new food and agricultural products.

To more economically and effectively accomplish its task, the division is comprised by the Food Grades and Standards Bureau, including the Poultry and Egg Section; the Feed, Seed, Fertilizer and Pesticide Bureau, including the Feed and Pesticide Section, the Fertilizer and Seed Section and the Road Guard Bureau. An administrative unit is headquartered in Tallahassee to maintain records, reports and statistics.

FOOD GRADES AND STANDARDS

The department's enforcement of Florida's Food Law was supported by the enactment of several new statutes. These provided for the use of administrative fines for misbranding, adulteration and poor sanitation permitting procedure for retail food establishments and plants, and the placement of stop-use orders on insanitary food processing equipment. During this period the Florida Administrative Code Food Rules, which support the enforcement of the food law, were revised.

The bureau contracted with the Food and Drug Administration to survey slack-fill of dry products sold throughout the state. Additional contracts were made to survey cents-off programs and labeling compliance of pre-packaged food items with the Fair Packaging and Labeling Act.

In 1971, the bureau effectively responded to two major recalls of commercially prepared foods contaminated with fatal botulism. Botulism from commercially prepared foods has been a rare occurrence in the United States.

Continuing education programs for field personnel were conducted this biennium and the use of improved inspectional equipment was developed. Official scales were modified, and the test-

weighing system was altered to provide more effective control over potential short weight practices in the sale of foods throughout Florida.

Also, the bureau supported other divisions concerning the enforcement of their laws pertaining to the retail use of food.

POULTRY AND EGG

This section continues to expand as the industry grows. The last biennium shows more growth than previous years. Although there was no increase in broiler processing plants, the existing operations have increased their capacity to such a degree that poultry inspections and grading have almost doubled. Poultry grading personnel have been added to give better coverage for controlled grades in market channels. Further increases can be expected in this area as the product becomes more acceptable to independent and chain supermarket buyers.

The section's egg activities have also increased considerably. Export figures have remained about the same because of the population growth within the state. Some of the larger processing plants have increased their production and have requested continuous grading service. Demand has been met with appropriate personnel added.

In eggs, as in poultry, efficiency has resulted in better product acceptability by the consumer. Since



In the food laboratory, Division of Inspection, hundreds of food samples are tested for weight, slack fill, or label accuracy. Many samples are chemically analyzed to detect possibly dangerous additives.



The poultry and egg industry of Florida is a multi-million dollar business. Elaborate system of inspection is maintained by FDA&CS personnel who see to implementation of legal standards, and often make useful and productive suggestions to commercial producers.

this section administers the Egg Products Inspection Act through a cooperative agreement with the USDA, undergrades and restricted eggs are removed from consumer channels. Because of this expanded program, fewer inedible eggs reach retail levels, and, as the in-plant inspection program grows, better quality eggs appear in supermarkets and all other retail outlets.

FEED, SEED, FERTILIZER AND PESTICIDE

The duties and responsibilities of enforcing and administering the feed, seed, fertilizer and pesticide laws continue to increase. In 1972, consumer demands for safe yet effective materials for use in food production multiplied greatly. The development of chemicals for disease and insect control which do not damage the environment made it necessary to change the inspection program. Better

restricted pesticide control was developed to protect the public as well as the environment.

Improved sampling techniques and assignment changes were inaugurated to meet the demands of a new farming technology. A cooperative agreement was made with the USDA on posting fields where highly toxic pesticides were used.

During this biennium, a new regulation was promulgated for the collection of field samples of bulk-mixed fertilizers. A new method of collecting samples, based upon the recommendation of the Association of Official Analytical Chemists, was developed to assure the collection of representative samples from field loads of fertilizer.

The Fertilizer and Pesticide Technical Committees also recommended several new rules governing fertilizer-pesticide mixture.

The seed certification program continues to be a national leader. Florida was recognized at the Association of American Seed Control Officials as having one of the best seed certification programs in the nation. Inspectors in seed producing areas assured the production of true varieties of pure seed. Pure lines of crop seed breeder stock are necessary to maintain high levels of production.

The pesticide program continues to maintain a high priority. The final passage of a new Federal Environmental Pesticide Control Act of 1972 has brought increased responsibility in this area.

It was necessary to expand inspectional activities in the area of pesticide users. A vital part of this program is to investigate and report incidents involving pesticides. The rule concerning restricted pesticides has been updated periodically.

Feed inspection, sampling, and enforcement have become more significant as ingredients become more scarce and expensive. Expanded non-protein nitrogen use and the liquid feed tonnage has also increased yearly. Frequently, analyses are required to assure that proper and safe levels of NPN are present.

Samples are being submitted and spot-checked for the presence of aflatoxins. Screening for feed pesticide residues and salmonella testing are performed in department laboratories.

Also, the tonnage of canned and dry pet foods distributed in Florida has increased sharply during this biennial period.

Label review is an important phase of enforcement, especially with medicated feed requirements to verify that excessive residues are not found in meat, milk and eggs. This is also important to insure that the drugs function as intended.

ROAD GUARD

There were substantial increases in Road Guard activity during the biennium.

The function of the Road Guard is to inspect agricultural commodities entering and leaving Florida by the way of vehicular traffic. Two additional road guard stations were built during this biennium. One was completed in Day, Florida, and construction commenced on the I-10 road guard station.

Dramatic increases in the out-shipment of cattle, poultry, watermelons, tangerines, oranges and tomatoes were especially significant.

The relatively small number of violations continues to reflect the sound quality of inspections.

ROAD GUARD SERVICE INSPECTIONS

	1968-70	1970-72
LIVESTOCK		
Number of Cattle Entering Florida (Head)	347,980	365,465
Number of Cattle Leaving Florida (Head)	758,600	1,100,760
Number of Cattle, Intrastate (Head)	100,763	116,747
Number of Swine Entering Florida (Head)	352,585	410,571
Number of Swine Leaving Florida (Head)	116,609	77,487
Number of Swine, Intrastate (Head)	175,126	173,637
Number of Horses Entering Florida (Head)	39,431	49,201
Number of Horses Leaving Florida (Head)	31,551	41,728
Number of Horses, Intrastate (Head)	4,774	5,674
Number of Livestock Violations	670	877
DAIRY PRODUCTS		
Dairy Products (Pounds)	359,251,388	332,684,994
CITRUS		
Oranges (Boxes)	18,577,584	38,753,419
Grapefruit (Boxes)	33,139,268	44,222,573
Tangerines (Boxes)	3,394,937	8,709,582
Limes (Boxes)	635,562	1,491,288
CITRUS PRODUCTS		
Canned Fruit and Juices (Gallons)	50,086,363	57,967,980
Concentrates (Gallons)	69,645,944	73,396,657
CITRUS VIOLATIONS		
Number of Violations	410	184
LIME AND AVOCADO VIOLATIONS		
Number of Violations	75	106
TOMATOES		
Tomatoes (Boxes)	14,721,553	25,351,266
TOMATO VIOLATIONS		
Number of Violations	102	272

POULTRY AND POULTRY PRODUCTS			
Poultry (Pounds)	816,900,483	962,411,800	
Pullets, Imports (Head)	2,879,180	2,463,773	
Eggs (Cases)	6,915,198	8,007,654	
Frozen Eggs (Cans)	19,192,912	16,428,973	
VEGETABLES			
Vegetables (Cartons)	125,316,600	132,860,802	
WATERMELONS			
Watermelons (Cwt.)	12,220,457	16,149,743	
GLADIOLUS			
Gladiolus (Hampers)	1,126,510	1,108,443	
CHRYSANTHEMUMS			
Chrysanthemums, Cut (Cartons)	1,111,486	1,054,017	
Chrysanthemums, Potted Plants (Cartons)	239,570	346,617	
COLONIES OF BEES			
Number of Colonies	585,945	615,922	

FOOD LAW ENFORCEMENT

	1968-1970	1970-1972
Number of Inspections	121,822	151,511
Food Stop-Saled (Pounds)	5,449,455	3,160,235
Food Stop-Saled (Packages)	1,148,213	776,073
Impure or Adulterated Food Destroyed (Pounds)	4,277,277	9,723,630
Irregularity Reports Issued	245	1,075
Number of Official Samples Drawn	3,577	8,773
Number of Food Packages Weighed	1,053,909	1,143,784

EGG LAW ENFORCEMENT

	1968-1970	1970-1972
Eggs Inspected (Cases)	5,180,152	9,756,383
Shell Eggs Candled (Dozen)	2,023,759	2,392,953
Frozen Egg Samples	2,210	156
Shell Eggs Stop-Saled (Cases)	7,105	22,914
Shell Eggs Destroyed (Cases)	11,584	86,316
Irregularity Reports Issued	295	249

POULTRY LAW ENFORCEMENT

	1968-1970	1970-1972
Poultry Inspected (Pounds)	166,718,561	221,104,798
Poultry Stop-Saled (Pounds)	50,112	318,938
Poultry Destroyed (Pounds)	8,365	10,699
Irregularity Reports Issued	371	89

SEED LAW ENFORCEMENT

	1968-1970	1970-1972
Number of Dealer Inspections	32,963	66,407
Number Consumer Inspections	3,758	31,581
Samples Drawn	8,349	16,839
Seeds Stop-Saled (Pounds)	745,648	1,553,803
Seeds Destroyed (Pounds)	71,399	99,919
Packages Weighed	7,552	6,563

FLORIDA CERTIFICATION SEED LAW
CERTIFIED SEED, CROP OF 1971

	Acres	1968-1970 Pounds of Seeds Tagged & Sealed	1970-1972 Pounds of Seeds Tagged & Sealed
Oats	561	1,242,215	1,029
Peanuts	14,389	12,111,830	37,595
Soybeans	488	305,040	264
Watermelons	66	541	73
Barley	35	62,400	433
Cowpeas	85	21,284	3
Rye	218	150,682	189
Ryegrass	31		12
Wheat			175
			182,580

COMMERCIAL FEED LAW ENFORCEMENT

	1968-1970	1970-1972
Number of Inspections	119,810	114,195
Stock Feed Weighed (Packages)	57,728	113,289
Stock Feed Stop-Saled (Short Weight) (Packages)	7,245	14,326
Tons Feed Stop-Saled (Short Weight)	212	49,453
Tons Feed Stop-Saled (Improper Tagging)	284	29,760
Pet Food Stop-Saled (Pounds)	284,938	78,381
Pet Food Stop-Saled (Cans)	156,086	78,029
Samples Drawn	10,877	12,662
Tons Represented by Samples	142,034	14,846,821
Pounds Pet Food Represented by Samples	1,655,862	1,703,615
Irregularity Reports Issued	396	391

ANNUAL MASTER COMMERCIAL FEED REGISTRATIONS

Number of Registrations Issued as of June 30, 1970	578
Number of Registrations Issued as of June 30, 1972	659

COMMERCIAL FERTILIZER LAW ENFORCEMENT

	1970-1972
Number of Inspections	59,949
Fertilizer Stop-Saled (Tons)	148,799
Fertilizer Destroyed (Pounds)	67,113
Irregularity Reports Issued	458
Number Fertilizer Samples	16,130
Number Fertilizer Packages Weighed	78,688
Number Tons Represented by Samples	248,061

BRANDS OF MIXED FERTILIZERS AND FERTILIZER MATERIALS
REGISTERED WITH FLORIDA DEPARTMENT OF AGRICULTURE

Number Registered as of June 30, 1970	77,000
Number Registered as of June 30, 1972	81,000

FERTILIZER DEALERS, IMPORTERS, AND MANUFACTURERS
REGISTERED WITH FLORIDA DEPARTMENT OF AGRICULTURE

Number Registered as of June 30, 1970	374
Number Registered as of June 30, 1972	369

PESTICIDE LAW ENFORCEMENT

	1968-1970	1970-1972
Number of Inspections	154,548	66,489
Pesticide Stop-Saled (Pounds)	54,858	547,805
Pesticide Stop-Saled (Gallons)	34,372	37,818
Pesticide Stop-Saled (Packages)	30,913	2,056
Pesticide Destroyed (Pounds)	1,944	25,167
Irregularity Reports Issued	9,558	2,038
Number of Samples Drawn		12,685

**PESTICIDE DEALERS, IMPORTERS AND MANUFACTURERS
REGISTERED WITH FLORIDA DEPARTMENT OF AGRICULTURE**

	1971 Calendar Year	1972 Calendar Year
Number Registered	1,051	1,129

**BRANDS OF PESTICIDES REGISTERED
FLORIDA DEPARTMENT OF AGRICULTURE**

	1971 Calendar Year	1972 Calendar Year
Number Registered	8,995	8,957

**RESTRICTED PESTICIDES
(Jan. 1 - Dec. 30, 1972)**

Users Permits Issued	10,899
Dealers Licenses Issued	869

Marketing

Marketing is the business transaction in handling operations involved in getting products from the producer to the consumer. These operations involve the assembling, transportation, processing, wholesaling and retailing of the agricultural products. To perform these services, the Division of Marketing is charged with the responsibility of collecting marketing information, licensing and bonding the buyers of agricultural products, providing facilities and marketing assistance and promoting market outlets for Florida agricultural commodities throughout the markets of the world.

During the biennium there were several studies conducted by the division involving more efficient and economical programs in marketing. These included a Containerization and Packaging Study and Institutional Marketing Survey.

STATE MARKETS

The Bureau of State Markets is headquartered at Winter Haven, the geographical center of the state. Included in the bureau are 15 produce mar-

kets, three livestock markets, and nine agricultural crops and livestock pavilions which are located throughout the state to serve the needs of the various production areas.

The markets were designed to bring growers and buyers together for the purpose of marketing fresh fruits and vegetables efficiently. Services and facilities vary considerably from market to market. They include packing houses, sales and auction platforms, auction services, restaurants, service stations, icing and cooling facilities, and truck and livestock scales. The markets are primarily self-supporting, with income derived from platform and office rental, package and scale fees, concessions and commissions.

The pavilions, operated and maintained by the counties in which they are located, are used in the promotion of the agricultural and livestock industry and as office space for agricultural agents. They are being used extensively by the communities for non-political purposes, educational fairs, shows, expositions, meetings and sales, and to house local agricultural educational groups.

Each market is staffed by a full-time market-



Huge volume of truck and farm produce moves from state farmers' markets like this one.

ing specialist and other trained personnel as required, with the exception of the Suwannee Valley Market which is operated part-time by market managers from other areas, with the assistance of the Winter Haven office.

Each of the markets operates with the assistance of a Market Advisory Committee composed of growers and other community leaders. The committees have increased their activities and the Florida City, Pompano and Ft. Pierce Committees have actively promoted successful "open house" events at their respective markets during 1971-72 to acquaint legislators, state, county and city officials, as well as community leaders with their markets and their value to the state's economy.

Gross Sales Increase

Gross sales at produce markets totaled \$156,991,064.82, an increase of \$22,996,606.05 in gross sales over the previous biennium. Livestock markets handled a total 52,724,200 lbs., which sold for \$16,364,369.27 an increase of \$2,708,544.27 in gross sales over the previous biennium. Gross sales at livestock and crops pavilions totaled \$4,281,901.83.

Several important construction projects were made possible during the past biennium by the new "Agreement of Intent Program." This is a program in which the tenant furnishes funds to construct a building or addition, according to Bureau of Markets specifications. The cost of the project is amortized over a period not exceeding 10 years, as prepaid rent. The length of time is determined by a formula, taking into consideration the type of facility, cost, and prevailing market rental rates.

At the end of the amortization period, the prevailing rental rates are applied to the property.

Major projects and activities at each of the markets were:

ARCADIA

Improvements made in the past year have earned this market the title of the most beautiful and modern livestock market in the southeast. The market lessee installed central air conditioning and heating to add to the comfort of his patrons who view livestock brought into the arena, while seated in comfortable rocking chairs.

Along with many of the improvements made was the installation of artificial turf in the floor of the arena which, as far as can be determined, is a "first" in livestock market history. This market has shown a steady growth in sales from \$88,080 in 1939-40, its first year of operation, to a record total of \$7,168,673 in 1971-72.

BROOKER

The Brooker area has shown a marked increase in production in the past few years. Several new buyers have located here and sales handled through the market have more than doubled from 1970-71 to 1971-72. A combination scale house and market manager's office was completed to provide space to carry on the market's business.

BONIFAY

A 10' overhang was completed on both sides of the packing house to provide protection for produce as it is unloaded onto the market. Modern offices were also completed to provide a convenient place in which to conduct market business.

FLORIDA CITY

Additional concrete platform loading and unloading space was completed to increase the efficiency of the tomato packing operation. A 50' x 60' concrete and steel addition to one of the tomato packing houses was made through the Agreement of Intent. Nearly seven million dollars worth of tomatoes were handled through this market in 1971-72 and gross sales for tomatoes were approximately \$6,000,000 in 1970-71. Office and restroom space was increased.

FORT MYERS

The volume of flowers handled through the Ft. Myers Market continued to increase, with \$16,000,000 worth of gladioli, pompoms and potted

mums handled through the market in the past biennium. A 110' x 195' modern steel and concrete packing house, with adjoining 30' x 100' steel shed over paving, was constructed to handle the increased volume of produce in the area. This facility was designed to accommodate mechanized handling of commodities for greater efficiency.

Several of the existing packing houses were refloored with plywood so that lift-trucks could be used to more efficiently handle produce.

FORT PIERCE

Tomatoes represent this market's major crop, with gross sales of almost \$12,000,000 in the past two fiscal years. This market has pioneered the latest concept in tomato ripening facilities. Ground-level holding sheds and dumping facilities were also installed.

Major repairs made to packing houses included replacement of wooden floors with concrete, to enable lift-trucks to operate safely, and reinforcement of a packing house loft to carry an increased load of crate material. An open platform in one of the packing houses was enclosed to permit greater utilization of market space. An addition of an 80' x 96' open-steel shed was made, also through the Agreement of Intent, to enable pack to change operation to improve tomato handling practices, thereby increasing efficiency and output.

GADSDEN COUNTY

The major crop of this area has been hand-picked pole beans. Mechanical harvesting of snap and butter beans has been tried, with the hope of increasing acreage of these crops. A buyers' office was added.

IMMOKALEE

Twenty tomato ripening rooms were constructed through the Agreement of Intent, with capacity of 40 carloads. Also through the A.O.I., a 40' x 102' open steel shed was constructed to enable packer to utilize improved tomato handling practices. Construction has been started on additional water mains to improve fire protection at this market, and an office addition was made to one of the packing houses to provide adequate facilities for handling increasing sales.

JAY

The state literally "struck oil" in December, 1971, when the rights to drill for oil under the Jay Livestock Market were leased by the Cabinet for a

record \$161,777 to an independent producer. According to the winning bidder, this is an unusually high price for such a lease. Discovery of oil will automatically extend the lease and give the state a 1/6 royalty.

During the past biennium the sales arena at the market was renovated to provide an up-to-date facility for the sale of livestock.

PAHOKEE

A continuing increase in volume is being handled, with a \$1,500,000 increase in gross sales over the previous year recorded for 1971-72. Tenants constructed a large refrigerated warehouse adjacent to the market property.

PLANT CITY

A cooler room was enlarged and renovated at this produce auction market, making it possible for tenant to ship a greater volume of high quality fruits and vegetables.

POMPANO

A riding power sweeper was purchased to expedite cleaning the market platform, and also the large parking area. The antiquated lighting system was revamped to provide adequate lighting for transacting this market's multi-million dollar produce business, which exceeded \$40,000,000 in gross sales during the last biennium.

SANFORD

A transfer company, which specializes in live plants, established headquarters on the Sanford Market. The gross sales for live plants handled at the market during the last fiscal year, exceeded \$12,500,000. Sales in 1970-71 approached \$6,000,000. A 10' x 460' concrete platform was completed.

STARKE

A fire destroyed the main building of this market, which housed the cooler, sales platform and market offices, on March 5, 1971. Following the fire, the strawberry and pecan auction sales were held at nearby Lawtey. The initial planning work for replacing this building was begun in the last biennium. A new 50' x 152' modern steel structure with concrete platform, cooler rooms, modern market offices and restrooms was projected.

SUWANNEE VALLEY

The remaining undeveloped area of the market was filled, graded, and stabilized with lime rock to

eliminate drainage problems and provide increased loading space. The market handled a record volume of produce during the biennium.

WAUCHULA

A modern 114' x 72' steel and concrete packing house with loft, offices, and restrooms was constructed to provide additional facilities for the rapid growth in the volume handled at the market due to increased acreage in the area.

MARKET NEWS

The Florida Federal-State Market News Service is, as the name implies, a part of a nationwide system. The purpose of the Market News Service is to provide information which is accurate, which through uniform reporting procedure is comparable between markets, and which is promptly and widely disseminated.

The function of the Market News Service is to report the results of transactions between those who have goods to sell and those who want to buy, on a market-wide basis. This system is of considerable complexity nationwide and ties together, through leased wire circuits, some 23 reporting offices at terminal markets and 48 offices at shipping point. Of these 48 shipping point offices, 19 are operated under cooperative agreements between the federal government and certain states. Seven of these 19 are in Florida.

Livestock

The primary function of the Livestock Section is reporting current daily and weekly market news reports, in cooperation with the United States Department of Agriculture under a Federal-State Market News Agreement.

During the 1970-72 period Florida livestock specialists reported 1,500 regular weekly cattle and hog auction sales, 131 special feeder pig sales and 24 special feeder cattle sales. More than 150,000 written reports on sales were furnished to markets, local radio-TV stations and newspapers, with individual markets further relaying official price information on 700,000 mailed cards. Daily and weekly statewide reports were assembled and prepared by the cooperating U.S.D.A. office and released to commercial news wire services, who relayed these to Florida radio-TV stations and newspapers.

Livestock Market News specialists supplied live and taped daily broadcasts to six radio stations, and made several appearances on television programs to discuss Florida livestock marketing and market news.

During the 1970-72 period, under a special Federal-State project, 28,000 illustrated brochures were pre-

pared and distributed nationwide. These served to publicize Florida cattle and helped boost out-of-state feeder calf shipments from 425,000 head in 1970 valued at \$42 million, to 600,000 worth \$88 million in 1972.



Florida's beef cattle industry showed outstanding volume and market gains during the report period. Classically, Florida beef animals were improved by infusing Brahman with native types, and in turn crossbreeding this progeny with English or exotic types.

Fruit and Vegetable

Established programs in fruit and vegetable market news continued in the central office in Orlando and six field stations located in Belle Glade, Florida City, Hastings, Lakeland, Pompano and Sanford. Orlando office was open year round, with the other offices operated seasonally during the peak shipping periods. The collection and dissemination of timely supply and price information by these offices is a source of factual data contributing to stability in the industry.

In addition to fruit and vegetable reporting, new emphasis has been placed on service to Florida's ornamental crops industry. These new programs, a combination of movement and price reports requested by the industry, are expected to develop into a complete service of current supply and price information. The mushrooming south Florida subtropical fruit industry is now covered by market news reports, also.

Poultry and Egg

Poultry and egg markets are reported daily from the headquarter office in Tampa and the Pensacola field office. The west central and northeast Florida and the Miami area markets are issued from the Tampa office, and the west Florida market from the Pensacola office.

The Tampa office reports the fruit and vegetable market in the Tampa area for the fruit and vegetable section. This market is released to the local newspapers and is forwarded to the Fruit and Vegetable Market News Office in Orlando.

A poultry and egg report, containing information of state and national significance is prepared and mailed daily to people requesting the market. A total of 67,600 bulletins were mailed during the biennium. Producers, processors, and dealers are advised daily via telephone of price and market trends in important national markets as they develop. Each Monday, a surplus egg inventory report that reflects uncommitted stocks is compiled and disseminated. This information is included in a national report, and over 10,000 copies of the Florida and national inventory reports are issued.

Market Bulletin

First entered for circulation on a semi-monthly basis in August, 1919, the Bulletin has been offered free of charge as a farmer-public service publication and today serves over 80,000 Floridians with agricultural news, events and listings of articles wanted, for sale or exchange.

The Market Bulletin is striving to improve its services with added information, better copy, prompt mailings and accurate response to readers' requests.



Livestock market reporter attends cattle sale. Data is compiled and moves daily as market news of interest to cattle producers and markets.

Florida Crop and Livestock Reporting Service

The Florida Crop and Livestock Reporting Service is jointly operated by the Florida Department of Agriculture and Consumer Services, and USDA's Statistical Reporting Service. It is the official source of production and value statistics for Florida agriculture. Numerous reports containing both current and

historic crop and livestock statistics are published by this Orlando-based office.

Forecasting citrus crops has gained world-wide attention because of the highly sophisticated methods used. It maintains an inventory of citrus acreage using aerial photographs. Estimates of fruit per tree and average fruit size are based on probability sampling. The forecast record on citrus has been excellent with early season forecasts for oranges deviating from volume harvested by an average of 4.2 percent in recent years. This is a far better record than for major fruit crops in other states. The bureau also services the citrus industry with other statistical reports, including a series to determine fruit maturity dates and internal quality.

The service is also assisting the poultry industry by supplying comprehensive weekly and monthly data relating to broiler and egg production, and commercial egg prices.

The state's giant vegetable industry is served with current statistics on acreage and prospective production in a series of weekly, monthly, and quarterly reports. Florida provides its vegetable industry with more refined acreage data than is available in any other state or country. The Service also publishes detailed series relating to historic production, including county statistics.

The service, largely as a part of its federal program, prepares comprehensive acreage and production estimates for field crops and specialty crops which are important in Florida.

The Florida Crop and Livestock Reporting Service utilizes data from other bureaus in the department in its program and, in some areas, assists in their summarization. It answers approximately 5,000 inquiries annually relating to the state's agriculture.

Expansion and Promotion

The Bureau of Market Expansion and Promotion set out on a 1970-71 plan of work that transcended the 1971-72 Fiscal Year plan of work as smoothly as a ship crossing the International Date Line.

Four areas of activity — bureau management, sales promotion publicity and public relations — were spelled out to maintain and increase the distribution and utilization of Florida's agricultural products and promote a favorable image for the Florida agricultural industry in order for these products to enjoy a favorable competitive position in the marketplaces of the nation and the world.

Promotional activities meshed successfully and fostered much greater understanding in agriculture and among the grower, the shipper, buyer, wholesalers, terminal warehousemen, chains, independent stores and the consumer.

LICENSE AND BOND

The Bureau of License and Bond is charged with the responsibility of licensing those dealers who purchase agricultural commodities from Florida growers or who handle agricultural commodities for Florida growers where actual cash currency is not paid at the immediate time of the transaction.

The primary intent of this law is to afford some reasonable assurance to the Florida growers that when they produce and sell a commodity they will be paid for the fruits of their labor. During the biennium four permanent field employees were sta-

tioned in the principal agricultural production and marketing areas of the state.

There were 1,693 personal contacts made by field personnel with prospective licensees or unlicensed dealers to inquire into their methods of purchase and to advise them as to the provisions and requirements of this Statute.

Additionally, there were 10,131 other personal contacts made with growers, dealers, and prospective licensees in an effort to obtain necessary information, not only as to the activities of unlicensed dealers, but in a way of explanation as to the requirements and provisions of the Agricultural License and Bond Statute.

COMMODITY REPORT REPRESENTING NUMBER OF UNITS AND APPROXIMATE PRICE OBTAINED FOR COMMODITIES SOLD DURING THE BIENNIAL 1970-72

FISCAL YEAR 1970-71		FISCAL YEAR 1971-72		TOTAL FOR BIENNIAL			
Markets	Number Units	Gross Sales	Number Units	Gross Sales	Number Units	Gross Sales	
VEGETABLE MARKETS:							
Florida Products:							
Bonifay	260,446	\$ 121,849.98	513,946	\$ 267,612.54	774,392	\$ 389,462.52	
Brooker	48,930	153,007.55	96,799	343,732.50	145,729	496,740.05	
Florida City	1,454,613	6,583,465.00	1,601,593	7,475,079.00	3,056,206	14,058,544.00	
Fort Myers	1,061,365	11,409,981.55	999,418	12,103,253.40	2,060,783	23,513,234.95	
Fort Pierce	1,286,092	5,884,272.75	1,370,398	7,850,787.790	2,656,490	13,735,060.45	
Gadsden County	53,699	213,162.95	57,942	244,275.76	111,641	457,438.71	
Immokalee	1,714,071	5,885,676.05	1,734,523	6,748,070.85	3,448,594	12,633,746.90	
Pahokee	2,290,277	6,675,857.40	2,185,579	8,059,919.55	4,475,856	14,735,776.95	
Palatka	500,283	1,218,752.25	1,752,311	1,098,677.65	2,252,594	2,317,429.90	
Plant City	450,086	1,711,827.30	497,566	2,270,909.35	947,652	3,982,736.65	
Pompano	4,440,323	18,602,668.45	4,351,105	21,494,805.05	8,795,428	40,097,473.50	
Sanford	1,272,238	8,635,029.78	1,407,746	15,721,373.85	2,679,984	24,356,403.63	
Starke	73,817	280,235.37	1,319	22,746.56	75,136	302,981.93	
Suwannee Valley	825,401	1,145,361.58	1,103,352	1,060,415.62	1,838,753	2,205,777.20	
Wauchula	483,131	1,187,533.52	588,838	2,461,435.06	1,071,969	3,648,968.58	
TOTAL FLORIDA PRODUCTS	16,214,772	\$69,708,681.48	18,176,435	\$87,223,094.44	34,391,207	\$156,931,775.92	
OUT-OF-STATE PRODUCTS:							
Sanford	15,206	\$ 44,820.45	—0—	\$ —0—	15,206	\$ 44,820.45	
Ft. Pierce	—0—	—0—	2,408	14,468.45	2,408	14,468.45	
TOTAL OUT-OF-STATE PRODUCTS	15,206	\$ 44,820.45	2,408	\$ 14,468.45	17,614	\$ 59,288.90	
TOTAL VEGETABLE MARKETS							
	16,229,978	\$69,753,501.93	18,178,843	\$87,237,462.89	34,408,821	\$156,991,064.82	
LIVESTOCK MARKETS:							
Arcadia	189,818	\$ 5,661,845.14	198,477	\$ 7,168,673.67	388,295	\$ 12,830,518.81	
Bonifay	3,046	54,622.89	2,587	65,039.00	5,633	119,661.89	
Jay	61,991	1,432,346.64	71,323	1,981,841.93	133,314	3,414,188.57	
TOTAL LIVESTOCK MARKET	254,855	\$7,148,814.67	272,387	\$ 9,215,554.60	527,242	\$ 16,364,369.27	
TOTAL VEGETABLE AND LIVESTOCK MARKETS	16,484,833	\$76,902,316.60	18,451,230	\$96,453,117.49	34,936,063	\$173,355,434.09	

Generally a Vegetable Market Unit is a bushel

Generally a Livestock Market Unit is 100 pounds

Finally, there were 2,832 personal contacts made in an effort to obtain license fees, applications for licenses, and surety bonds involving those dealers known to be transacting business under the authority of this statute.

There were 101 official claims filed with this bureau at a total claimed monetary value of \$522,694.86. Through direct action we were able to recover \$174,617.31 for Florida growers.

The following statistical data represent the principal activities of this bureau for the biennium:

During this biennium, this bureau completed the evaluation of the bond amounts which should be required for dealers in livestock and took the necessary action to raise the maximum bond requirements for such dealers from \$20,000 to \$50,000. Study evaluation and recommendation concerning possible enactment of a Livestock Prompt Payment Law were made during this report period.



State farmers' markets are well-known for the volume of fruits and vegetables handled, sold, and moved to distant points. Some markets feature stalls and displays where wide selection of produce is available to shoppers for home use.

LICENSE AND BOND DATA

Number of Licenses Issued to Dealers	4,332
Revenue From License Fees	\$87,650
Total Amount of Surety Bonds Posted	\$28,306,301
Number of Claims Received	101
Investigations of Claims	546
Monetary Value of Claims	\$522,694.86
Monetary Value of Claims Paid	\$174,617.31

LIVESTOCK AND CROPS PAVILIONS SALES AND SERVICES RENDERED 1970-1972 BIENNIMUM

	Number Shown	Number Sold	Gross Sales	Meetings and Shows	Total Attendance
1970-71	2,949	1,899	\$1,960,845.37	746	149,441
1971-72	4,484	1,906	2,31,056.46	906	218,428
TOTALS 1970-72	7,433	3,805	\$4,281,901.83	1,652	367,869

Plant Industry



To prevent spread of the Caribbean fruit fly, all fresh citrus bound for western citrus producing states is fumigated. This two-bay chamber was constructed in 1971 with inspection fee funds collected from growers. The shipper pays a fee to offset the cost for the fumigation service.

ADMINISTRATION

The Division of Plant Industry is charged by the Legislature with the protection of Florida's food, fiber and ornamental industry through the detection, identification, and control or eradication of plant pests.

METHODS DEVELOPMENT

The unprecedented growth of Florida Agriculture during the last decade prompted the division to establish a Methods Development Program to improve techniques for field inspection.

One technique that proved to be readily adaptable to the detection of unhealthy plant growth is aerial infrared photography.

Some aerial infrared studies were made to determine the detectability and distribution of milk-

weed vine, to detect the degree of protection induced by deliberate inoculation of citrus with a mild strain of virus, and to measure the spread of young tree decline in citrus.

Other aerial surveys measured the severity of peach tree root rot, the loss of trees from the flooding of the Oklawaha River Basin, and the level of flora and fauna in Payne's Prairie near Gainesville. These missions proved to be successful with modified infrared film, but in others the degree of resolution in the film was too low to distinguish between healthy and unhealthy plant growth.

INFORMATION & EDUCATION

Information and Education personnel are responsible for publications, press releases, feature articles, a quarterly magazine, internal communications, field and studio photography, training aids, audio visuals, exhibits and general printing.

LIBRARY

The Division of Plant Industry library serves the division staff as well as University of Florida students and faculty and visitors. The library contained a total 7,955 bound volumes at the end of the biennium, and continues to accumulate scientific periodicals related to the identification and control of plant pests.

To conserve space, the library recently added a microfiche reader and 265 books recorded on microfiche.

A museum and archives were established in the library, known as the Division of Plant Industry Historical Museum and Archives. Materials are housed in this unit to reflect the historical work and service the division has rendered since its founding.

Memorabilia of the late George B. Merrill and Robert E. Foster have been placed in the library as a testimonial to their services to Florida agriculture. In addition, the entomological and apiary sections of the library have been dedicated in their honor.

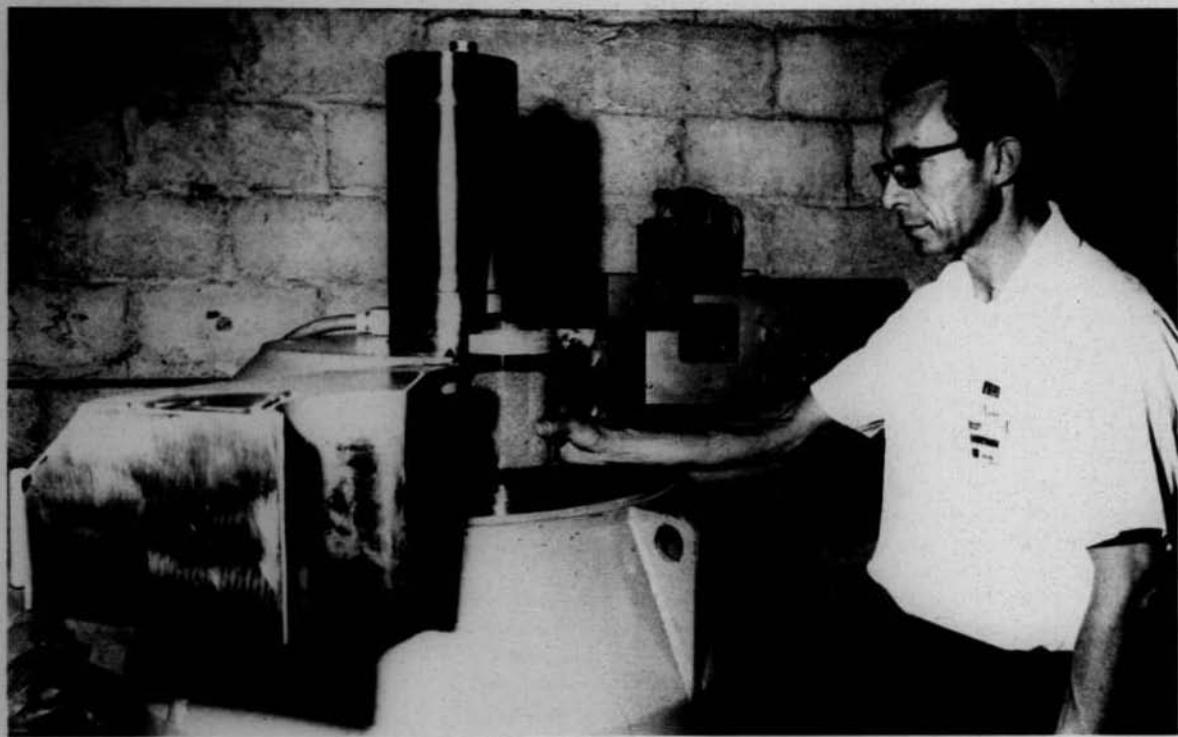
This entomologist is placing a container of fruit flies in the cobalt irradiation chamber to sterilize the male fly.

APIARY INSPECTION

The Bureau of Apiary Inspection systematically examines the state's honeybee colonies to detect the presence of deadly bacterial diseases such as American foulbrood. While harmless to humans, American foulbrood is contagious among bees and can spread rapidly from colony to colony. The bureau's continuous program of brood examination plus the elimination of diseased colonies assures a healthy apiary industry in Florida.

During the 1970-72 biennium more than 352,000 colonies were examined, and 3,775 were found infected with disease. These were destroyed, and \$21,629 was paid to Florida beekeepers in compensation for bees and equipment destroyed.

The beekeeping trade returns dividends in many forms. The annual wholesale market value of honey produced is nearly seven million, but the value of pollination services of bees in Florida is estimated to be 20 times the value of honey produced. In addition, 21,408 colonies were certified during 1970-72 for queen and package bee producers for shipment to other states.



CITRUS BUDWOOD

The Bureau of Citrus Budwood registration registers superior citrus trees which have been tested for virus disease and judged by the highest standards of excellence. These trees are maintained in a "foundation grove" as a reserve source of budwood.

The opening of the Walt Disney World attraction in 1971 triggered explosive growth in the area of US-27 and I-4, jeopardizing the future usefulness of the foundation grove at this location. The major portion of this grove is 12 years old, and cumulative records of tree growth, characteristics, fruit yields, and rootstock-scion comparisons become more meaningful each year. However, the value of this information must be balanced against the difficulties of operating the grove in a heavily congested, tourist-oriented area.

At the close of the biennium, a fiscally strong citrus industry faced major disease problems. The combined loss potential of young tree decline (YTD) and tristeza presents a frightening aspect for the industry. More than five years of work has not disclosed the cause of the rapid decline of young trees; however, it is apparent that YTD does not correlate with any virus now known to be in Florida.

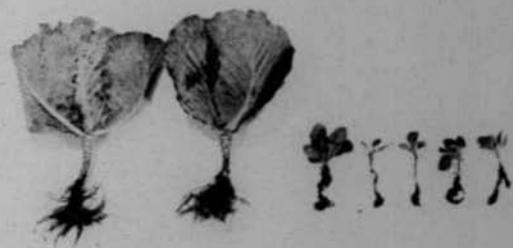
The Premium Quality Nursery Stock Program apparently leveled off. Slightly more than 1.6 million registered trees were grown for each of the past two years, but some problems arose. Seedbeds set on fumigated ground do not mature normally unless high rates of phosphorus are combined in the soil. Other problems have been encountered in an effort to prevent the re-establishment of harmful fungi, and these are being investigated.

NEMATOLOGY

The Bureau of Nematology examines samples submitted in conjunction with regulatory programs to detect the presence of nematodes, conducts surveys of agricultural and horticultural crops to determine nematode populations, and investigates methods of control and eradication of nematode pests.

A record total 18,458 samples was processed during the biennium, including 1,759 botanical identifications. This represents an increase of 7.6 per cent during the biennium.

The certification of plants for out-of-state shipment continues to be a barometer of the health of Florida's nursery industry. The sampling of ornamental plants prior to certification rose 16.5 per



Dwarf-sized plants when growing adjacent to healthy plants frequently indicate the presence of nematodes. These cabbages are the same age. Two are healthy, but others were victims of the cabbage cyst nematode.

cent, from 6,865 to 7,995. This pattern is expected to continue as federal and other state regulations against the movement of nematode-infected stock are more stringently enforced.

Surveys indicate the soybean cyst nematode is continuing to spread throughout the soybean-growing areas of west Florida. Santa Rosa County has joined Escambia, Walton, and Okaloosa Counties on the quarantine list.

Plant specialists have speculated that this pest is frequently spread by the use of contaminated seed. However, soybean growers have not been able to reach a consensus on regulations that would prohibit the use of soybean seed from nematode-infested areas.

The Site Approval Program and the Soil Pit Surveys have continued as nematologists stress the need for sanitary cultural practices. The effectiveness of sanitation procedures, an implicit part of the green tag certification program, is illustrated by the fact that 98.9 per cent of the 957 samples processed passed the green tag certification requirements.

Late in the biennium, the turf cyst nematode, *Heteroder leuceilyna*, was detected for the first time in a Florida turf nursery. The original area of infestation has not changed appreciably, but several new infested sites were reported. Primarily, this pest is confined to eastern Florida and the Bahamas.

A cyst nematode on cabbage has rapidly spread throughout Seminole County since early 1970. Investigations have determined that seedlings from infested sites have been used on uninfested properties, contrary to recommended procedures. Efforts were made to restrict the export of cabbage seedlings from Seminole County.



Male Caribbean fruit flies were exposed to cobalt radiation in this chamber before they were released to compete with native caribflies in the sterile fruit fly release program.

During the biennium more than 250 samples from plants affected by unknown causal agents were cooperatively diagnosed with the Bureau of Plant Pathology. More than one-third of all diagnosis contained both nematodes and disease, each capable of causing plant injury. Many other samples contained either nematodes or a disease which could be responsible for plant decline.

Both the herbarium and the seed collection expanded nearly 100 per cent during the past two years. The herbarium stocked 1,759 plant specimens and the seed collection reached a total of 604. These are used for identifying specimens of plants and seeds.

Capital equipment purchased for the bureau allows for greater diversity in nematode investigations. In September 1970, the bureau obtained a controlled environment plant growth chamber for studying nematodes under variable temperature and light conditions. A microwave oven was added to permit the elimination of pests from seed and sterilization of infested materials, and other applications where fast, dry heat is required.

The bureau maintains a nematode collection containing 4,629 specimens and microscope slides to serve as a taxonomic reference for identification and to serve as an educational tool for those studying nematodes and nematode-related diseases.

PLANT PATHOLOGY

The Bureau of Plant Pathology provides disease identification of plant specimens, carries out field surveys of agricultural and horticultural crops to determine the presence and distribution of plant

disease, and investigates methods to control or eradicate serious plant diseases.

Plant disease diagnostic work continued to increase during the 1970-72 biennium with 13,012 specimens processed. Recent biochemical developments have led to new procedures for identifying pathogens, and these developments have been incorporated into laboratory identification procedures.

Studies of diseases caused by fungi have been enhanced by the continued growth of the Florida Type Culture Collection. Significant collections of several genera were added during the biennium, along with many important plant pathogens indigenous to Florida.

Work on the isolation, identification, pathogenicity and control of phycomycetes has contributed toward a solution to root disease problems.

Follow-up surveys of two rust infestations at Fairchild Tropical Gardens Research Center in Miami indicate the 1969 joint DPI-USDA eradication program was successful. This pathogen represented a serious threat to Florida's corn crop.

The development of greenhouse facilities at the Doyle Conner Building in Gainesville contributed favorably to successful pathological studies. Six greenhouses containing approximately 250 square feet each, and another containing 1400 square feet were completed and equipped with cooling fans.

With the advent of lethal yellowing of coconut palms in Dade and Monroe Counties in 1971, helicopters were pressed into service as survey tools. The speed, maneuverability, and plane of view offered by this aircraft improved the accuracy while lowering the costs of extensive surveys.



A giant African snail infestation in south Florida caused considerable plant damage. Control of this pest was effected by the department's Division of Plant Industry, though limited outbreaks have been since noted in the Dade County area.

Studies in the Winter Haven pathology laboratory have concentrated on indexing of citrus virus diseases, the development of a procedure for early determination of young tree decline of citrus, and the phytotoxicity and efficacy of disease control of various fungicides and antibiotics when applied to orchids.

PEST ERADICATION & CONTROL

The Bureau of Pest Eradication & Control supervises pest eradication and control programs, operates the fruitfly detection network and directs the training school for new employees.

With the increasing mobility of the American family and the technology of modern transportation, the threat of invasion by exotic insects has risen sharply during the past decade. New pests are appearing in record numbers.

During the 1970-72 biennium, the gypsy moth, *Porteretria dispar*, was successfully eradicated from a trailer park in Pensacola. This pest defoliates thousands of acres of forests in the northeastern states every summer and represents a serious threat to Florida woodlands.

The fruitfly detection program continues to serve as an early warning system, alerting growers whenever foreign insects invade. In February, 1972, a female Mexican fruit fly was trapped near Sarasota. This species is a serious pest of citrus in Texas and Mexico. Subsequently, a four-month intensive trapping survey failed to yield any other specimens of Mexican fruit fly, so the lone female trapped was assumed to be a "stray" that hitched a ride on a ship or plane bound from Mexico to south Florida.

Data from fruit fly trapping statistics for the 1970-72 biennium record the spread of the Caribbean fruit fly to 31 counties. This pest has ravaged dooryard fruit in Florida since 1965. It can be found as far north as Jacksonville on the east and Brooksville on the west.

A sterile fly release experiment on Key West and four nearby islands was completed in June, 1972. In the beginning scientists released up to 1.5 million sterile flies each week without being able to suppress the caribfly population. However, after four weekly aerial applications of one ounce of malathion per acre in August, 1971, the ratio of sterile to native flies improved. The week ending June 3, 1972, was the first in 101 weeks of trapping without any native fly catches.

Sporadic infestations of giant African snails continued to appear in the Miami area. All are apparently offshoots of the original infestation reported in 1969.

After consulting authorities on snails, a three-year treatment and survey plan was adopted, and the outlook for eradication appeared to be promising. The last snail find in the original infestation was July 7, 1971. A second and third infestation was located in August, 1971, and May, 1972.

The citrus industry is justifiably concerned over the threat posed by the sugarcane rootstalk borer weevil. This Puerto Rican native infests approximately 2,000 acres of citrus near Apopka. Since September, 1968, the program to suppress, and if possible, eradicate this weevil has been hampered by restrictions against the use of persistent pesticides. Research personnel say that ultimate control will require the application of measured amounts of persistent pesticide to the soil to kill newly hatched larvae.



To deter the spread of lethal yellowing of coconut palms, the Division of Plant Industry contracted for the removal of diseased trees.

LETHAL YELLOWING

Lethal yellowing of coconut palms was found for the first time on the Florida mainland — Miami and Coral Gables — during September 1971. A ground survey showed the initial concentration contained 57 diseased palms.

Helicopter surveys in December, 1971, and March and May, 72, revealed no other outbreaks on the mainland. Ground and helicopter surveys to monitor the spread of lethal yellowing indicate that as of June, 1972, the highest incidence of the disease was restricted to the primary infested area, with the

most distant occurrence being four miles from the center.

The disease has spread in all directions, extending to Star Island, Key Biscayne, and Miami Beach. As of June 30, 1972, a total of 701 palms were displaying lethal yellowing symptoms. Because of the importance of the estimated 400,000 coconut palms in Dade County, the Department of Agriculture & Consumer Services authorized funds to continue surveys, reduce the supply of inoculum by cutting diseased trees, and encourage the replanting of coconuts with resistant Malayan dwarf varieties.

PLANT INSPECTION

The Bureau of Plant Inspection is charged with the responsibility to enforce statutes and rules and regulations governing the movement of plants and plant-related materials.

The number of nurseries under inspection decreased slightly, from 4,358 during the 1968-70 biennium to 4,199 during the 1970-72 period. Each nursery was inspected an average of three times annually.

Citrus nurseries continued to show a decline as more citrus nurserymen used modern, high density plant populations on small sites that were selected and chemically treated against nematodes and other soil-borne pests.

The amount of nursery stock in the state increased by approximately eight per cent, reaching

a total 361,263,459 plants. A total 27,425,223 plants were placed under quarantine during the biennium to protect the industry from dangerous plant pests.

The Farmer Treatment program is continuing to provide temporary relief from the imported fire ant. Under this program the land owner pays approximately 50 per cent of the cost for treatment. During 1970-71, 266,102 acres were treated, and 310,155 acres were treated the following year.

In May 1972, the Environmental Protection Agency issued a ruling prohibiting the aerial application of mirex in coastal counties. The ruling was later modified to allow mirex to be broadcast with ground equipment. The net effect of this rule is to increase the cost for mirex treatment per acre in coastal counties.

Presently, the imported fire ant is estimated to infest more than 20 million acres in 44 counties, and unless suppressed, the ants will spread up to 10 air miles annually.

ENTOMOLOGY

The Bureau of Entomology provides arthropod identification service, conducts limited investigations of certain economic problems, and conducts taxonomic investigations. There were 256,273 specimens identified from 29,801 samples received during the biennium. The Florida Collection of Arthropods now contains approximately 492,170 pinned and labeled specimens, 89,299 slide mounts, and several thousand papered or envelope specimens.



Standards

The headquarters and main laboratories for the Division of Standards are located at Tallahassee. Through a coordinated program of field inspection and laboratory testing, the division regulates gasoline and fuel quality and the accuracy of petroleum dispensers, scales and other measuring devices, assuring a fair transaction to both the buyer and seller.

PETROLEUM INSPECTION

Gasoline sales are climbing by some 500 million gallons each year and the Bureau of Petroleum Inspection analyzes approximately 6,000 samples of gasoline, kerosene, motor oil, brake fluid and other petroleum products monthly.

Gasoline is tested to be certain that it meets quality standards needed for good engine performance and lubricants and brake fluids are checked to assure the motorist that they are both safe and reliable.

Measuring devices from the service station pump to high volume terminal meters — are tested by bureau inspectors to be certain that they are

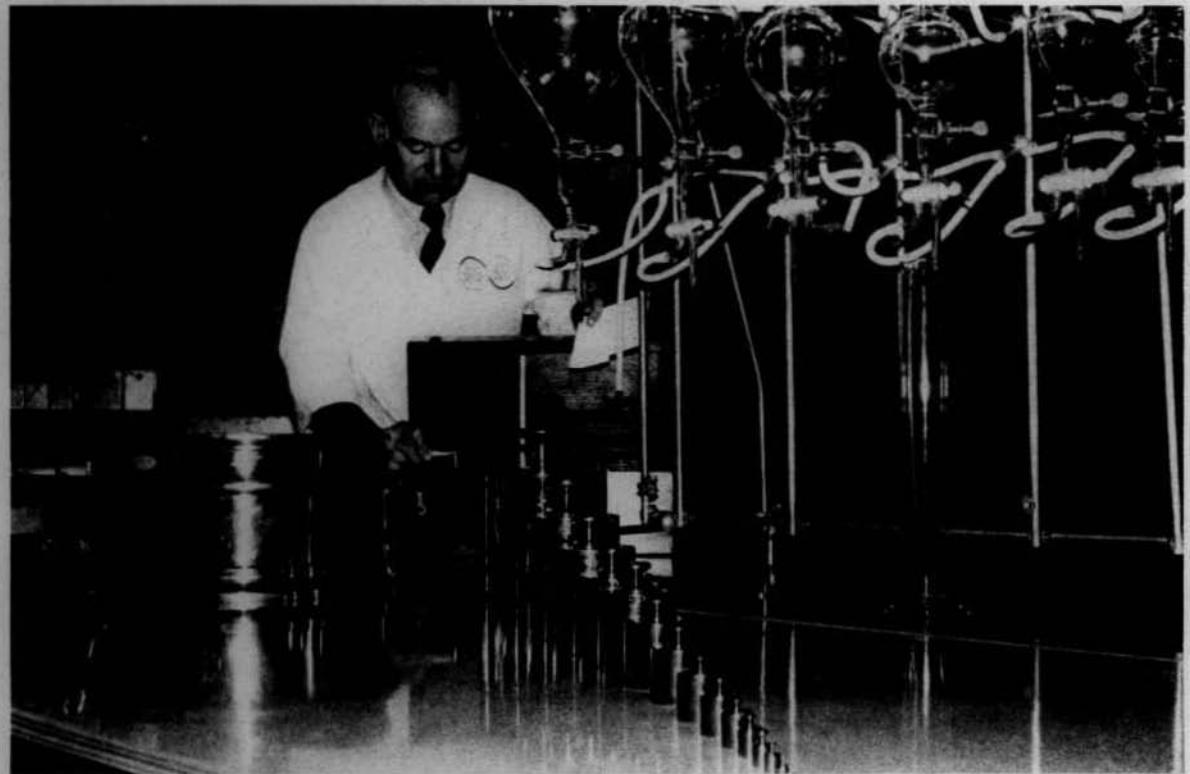


Thousands of gasoline samples, taken from retail gasoline pumps throughout Florida, were received by the department's Division of Standards laboratories for testing.

delivering accurately and meet other state standards. Meters on trucks delivering L.P.G. and heating fuel are inspected routinely. Tables following detail the testing and inspection done by the Bureau of Petroleum Inspection during the biennium.



Bureau of Petroleum Inspection, Standards Division, tests motor fuel samples in engine laboratory. Apart from certifying octane levels, skilled technicians test for possible adulteration and extraneous additives.



The department's Weights and Measures unit, Division of Standards, calibrates the weights which are used in field for testing commercial scales. Testing involves tiny prescription balances, or huge truck scales of many tons.



Meter testing of taxicabs (above) was instituted by the department during the report period. Many cars for hire were found using erratic and illegal taximeters. Corrections were made by offending cab companies, or cabs were ordered removed from commercial operation. The vehicle scale tester (right) carries 20 one-thousand pound weights. It is assigned to various locales, as are two other similar mobile units, and has test capacity of 300,000 lbs.



PETROLEUM INSPECTION
ENFORCEMENT OF THE GASOLINE INSPECTION LAW (CHAP. 525) AND THE
ANTI-SUBSTITUTION LAW (CHAP. 526)
JULY 1, 1970 THRU JUNE 30, 1972

Registrations (as of June 30, 1972)

Gasoline and Kerosene Brand Name Registrants	362
Gasoline Brand Names Registered	962
Kerosene Brand Names Registered	79
Brake Fluid Brands Registered	109
Gasoline Samples Drawn, Official	123,802
Kerosene Samples Drawn, Official	14,626
Miscellaneous Samples Analyzed, Special	1,294
Gasoline Found Substandard and Confiscated, Gals.	168,191
Gasoline Found Substandard and Otherwise Controlled, Gals.	9,387,840
Kerosene Found Substandard and Confiscated, Gals.	57,728
Kerosene Found Substandard and Otherwise Controlled, Gals.	1,202,119
Motor Oil, Transmission Fluids, and Other Lubricant Samples Analyzed	4,694
Found Off-Specification and/or Misbranded	579
Confiscated or Otherwise Controlled, Total Lots	388
Brake Fluids Analyzed and Found Legal	2,053
Brake Fluids Analyzed and Found Adulterated	172
Brake Fluids Found Misbranded	23
Brake Fluids Found Offered for Sale but not Registered	280
Brake Fluids Confiscated or Otherwise Controlled, Total Lots	464
Inspections of Pumps at Filling Stations, Total	326,175
Found Correct and Approved	294,334
Found Incorrect and Condemned	5,769
Found Incorrect and Correction Notice Issued	26,072
Percent Compliance	90.24
Inspection of Vehicle Tanks, Total	2,437
Compartments Found Within Tolerance and Resealed	3,667
Compartments Found not Within Tolerance, Corrected and Calibrated	4,763
Inspections of Wholesale Liquid Petroleum Meters, Total	7,842
Found Correct and Approved	5,661
Found Incorrect and Action Taken	2,181
Inspections of Liquefied Petroleum Gas Meters, Total	1,422
Found Correct and Approved	1,164
Found Incorrect and Action Taken	258

WEIGHTS AND MEASURES

In addition to testing more than 76,000 scales per year, the Bureau of Weights and Measures also checks odometers on rental cars, taximeters, fabric and linear measuring devices and prepackaged non-food commodities for proper and accurate quantity declarations.

Field testing is done with precision equipment maintained by the bureau's Tallahassee laboratory where the state standards of mass length and volume are housed. The laboratory calibrates and certifies weights for authorized scale mechanics and industry, as well as other measurement standards used by county and municipal governments.



Gasoline and kerosene samples from service stations are tested by Division of Standards petroleum inspection mobile laboratory unit. Five of these mobile laboratories move on regular circuits throughout the state.

WEIGHTS AND MEASURES
JULY 1, 1970 THRU JUNE 30, 1972

**Vehicle, Axle-Load Scales and
 Wheel-Load Weighers Tested**

Number of Scales Tested	3,900
Number Complying With Law	2,269
Number of Correction Notices Issued	1,442
Number Condemned	189

**Livestock and Single Animal
 Scales Tested**

Number of Scales Tested	1,442
Number Complying With Law	909
Number of Correction Notices Issued	330
Number Condemned	203

**All Other Scales Tested
 Except Prescription**

Number of Scales Tested	149,494
Number Complying With Law	135,490
Number of Correction Notices Issued	11,967
Number Condemned	2,037

**Fabric Measuring Devices and Linear
 Measures Tested**

Number of Fabric Measuring Devices Tested	1,405
Complies With Law	1,287
Correction Notices Issued	127
Condemned	11
Number of Linear Measures Tested	3,605
Complied With Law	3,390
Correction Notices Issued	136
Condemned	79

Prescription Scales Tested

Number of Scales Tested	4,273
Number Complying With Law	3,944
Number Corrected to Comply With Law	129
Numbered Condemned	200

Weights For Prescription Scales Tested

Number of Weights Tested	107,698
Number Found In Tolerance	107,295
Number Corrected Within Accepted Tolerance	287
Numbered Condemned and Seized	116

NON-FOOD PACKAGE INSPECTIONS (FEB. - JUNE 1972)

Number of Lots Inspected	1,381
Number of Lots Approved	1,000
Number of Lots Rejected	381
Number of Packages Tested	10,045
Number of Packages in Lots Approved	78,330
Number of Packages in Lots Rejected	48,744
Value of Lots Complying with Law	\$90,555.57
Value of Lots Stop-Saled	\$41,284.09

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During the biennium, more than 26,000 landowners in Florida, managing some 13 million acres of land, continued to benefit from the services made available through their local soil and water conservation district.

Recognizing their accomplishments in the field of conservation, the Florida Wildlife Federation presented the 1971 Governor's Merit Award for Conservation to the Soil and Water Conservation Advisory Council.

Construction was continued through the biennium on 12 watershed projects located throughout Florida. Approximately \$2,200,000 in federal funds was expended in watershed construction.

Local organizations contributed approximately \$500,000 during the 1970-72 period. Watershed projects are sponsored by conservation districts, county boards of commissioners and other local organizations. Watershed projects serve both town and country people in providing flood prevention, irrigation, drainage, fish and wildlife conservation, municipal water supplies and development of recreation.

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Florida Department of Agriculture and Consumer Services
DOYLE CONNER
Commissioner

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